DOCUMENT RESUME

ED 084 933 HE 003 750

AUTHOR	Moore, Hollis A.
TITLE	The Redefined Baccalaureate: A Proposal for the Establishment of a Modular Achievement Program at Bowling Green State University.
INSTITUTION	Bowling Green State Univ., Ohio.
PUB DATE	72
NOTE	180p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Bachelors Degrees; Degrees (Titles); *Educational Change; Educational Finance; Educational Innovation; *Experimental Programs; Freshmen; *Higher Education; *Interdisciplinary Approach; Student Costs; Teaching
IDENTIFIERS	*Bowling Green State University

ABSTRACT

This document contains the proposal to redesign the baccalaureate degree at Bowling Green State University. The proposal ties together 3 principal efforts. The first of these is a complete reform of the general education and particularly the freshman year experience. A second major theme is the development of new program lines that cut across traditional departments and that follow broad career directions. The third interest is in cost-of-college for the students at this state-supported university. In short, this proposal calls for a major commitment on the part of the University starting in the fall of 1972 with 8% of the freshmen, carefully chosen to represent a broad range of abilities; the plan assumes curriculum reform based upon a new approach to the freshman year followed by opportunities for a variety of career-oriented programs. Also this proposal introduced opportunities for an interim year in which students can participate in significant off-campus experiences without significant payment to the University. The proposal contains: (1) curricular modules based on student development objectives; (2) integrated academic and residential programs; (3) specially developed counseling programs; (4) opportunities for a shortened baccalaureate; and (5) more program options for faculty as well as students. The appendices contain proceedings of a conference on innovative teaching. (Author/PG)

FILMED FROM BEST AVAILABLE COPY

ED 084933

The Redefined Baccalaureate:
A Proposal for the Establishment of a
Modular Achievement Program
At Bowling Green State University

Submitted by:
Hollis A. Moore, President
Bowling Green State University
Bowling Green, Ohio

HE 003750

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

TABLE OF CONTENTS

PAGE

I. Introduction 1

II. Program Context 7

- A. Institutional Background 7
- B. Student and Faculty Profile 8
- C. Present Bowling Green Innovations 9

III. Program Description 13

- A. The Meaning of the Baccalaureate Degree 13
- B. First Year of Operation 17
- C. Second Year of Operation 19
- D. Future Development 20
- E. Three Sample Student Program Patterns 21
- F. Modular Achievement Program vs. Traditional Program 24
- G. The ADEC System 26

IV. Impact of the Program 31

- A. On the Student 31
- B. On the Faculty 31
- C. On the University 32
- D. On other Universities 32

V. Criteria for Evaluation of the Modular Achievement Program 33

not included – VI. Budget – not for Public Release 35

VII. Appendices --

I. Introduction

The recent challenge to redesign the baccalaureate degree has started a chain reaction at Bowling Green State University which promises far-reaching consequences in our institution. The several studies carried out by faculty and administrators in recent weeks have led to a commitment on the part of the University to move ahead aggressively in making significant changes. We have reached a point where the infusion of new funds will hasten our decisions, solidify support and give us valuable impetus. It is in this context - and because we believe our plans will have wide applicability - that we seek Carnegie Corporation support.

The suggestion that colleges should streamline, shorten and in general reform the traditional requirements of the baccalaureate intrigues us at this university because it speaks simultaneously to virtually all of our present deepest concerns about our undergraduate program - the rigidity of requirements, the rather dismal potpourri of survey courses in the freshman year, and the alarming prospects for greatly increased costs to students. Overriding all other issues is curriculum reform itself.

We are aware that the Corporation is supporting a variety of programs in the general area of a reduced-time baccalaureate; and we know that foundation resources must be limited to genuinely innovative approaches and that each proposal must make some special contribution to the national collegiate community and hopefully to the rapidly developing literature of innovative programs. We believe our proposal addresses the question of a shortened baccalaureate not only in a unique fashion but also from an approach to the question which makes it most likely to obtain general acceptance.

Our basic assumption is that the baccalaureate itself - what it means, what constraints it accepts, what it calls for in terms of personal effort - needs to be thoroughly examined and redefined. We are persuaded that such redefinition will lead to a shortened period of on-campus study for most students; but we are reluctant to substitute one time frame for another, even if it is three for four. Moreover we would like to make the approach one which has wide attraction for faculty and can be viewed as an appropriate academic response and not as an administrative arrangement. We are not unmindful of the necessity for new approaches through administration, logistics, and costs; but we are convinced that the rate of acceptance of " the new baccalaureate" - one which is individualized, which is shorter in its total time limit on campus, which has a strong career orientation without sacrifice of scholarly rigor - is much more likely to be accepted generally across the country as it grows out of and proceeds along lines which are of interest to faculty and students. Therefore, we see "the new baccalaureate" at Bowling Green only in terms of concurrent curriculum reform.

Our proposal, then, ties together three principal efforts which have proceeded in an intensive way on our campus for several months. The first of these is a complete reform of the general education, and particularly the freshman year, experience. Towards this end, a number of "Little" and "Cluster" experimental colleges have been developed and launched. (See section II, C.)

A second major theme on our campus at the moment is the development of new program lines which cut across traditional departments and which follow broad career directions. Three faculty committees are already in operation exploring the implementation of new professional schools in communications, health and environmental studies, and technology. In each instance the faculty of the new school would be totally drawn from existing faculty who would prefer the new career orientation to the traditional departmental structure. Preliminary reports from the committees indicate high interest in two-year campus programs which follow a single freshman year featuring intellectual inquiry and skills through an interdisciplinary approach to general education.

The third interest at Bowling Green at the moment is in cost-of-college for the students at this, a state-supported, university. Moreover, we are concerned about full utilization of our total facilities, human and physical, on the campus and our accountability to the general public for their use. Should a three-year baccalaureate become the overriding mode here on campus, it is clear that we would be able to accommodate another 20 to 25% student body with existing resources. Because of our concerns in the general area of finance, our proposal deliberately chooses to involve a broadly representative segment of our student population and eschews the approach (which would be much easier to arrange but we think much less valuable as an overall model for us as well as for other institutions in the country) which serves the needs of a selected group of highly-talented, academically-oriented students. In point of fact, such students have long had the opportunity of a shortened baccalaureate through advance placement.

In short, our proposal calls for a major commitment on the part of the University starting as early as the fall of 1972 with 8% of our freshman class, carefully chosen to represent a broad range of abilities; our plan assumes curriculum reform based upon a new approach to the freshman year followed by opportunities for a variety of career-oriented programs. In addition, we propose to introduce opportunities for an interim year in which students can participate in significant off-campus experiences without significant payment to the University.

Should our effort be successful, it would be a valuable addition to the experiences being accumulated through other Carnegie grants to institutions experimenting with "the new baccalaureate." Our commitment is to curriculum reform, not to reduction of present course requirements; to a representative sample of college students, not to a selective group of academically talented; to a general shortening of the time requirement, not an agreement to accept acceleration; to a redefinition of all important aspects of the baccalaureate degree, not merely a restatement of the time expectations.

We have for some time been conscious of two plausible approaches to a redefinition of the baccalaureate. One could proceed in the manner of a family rearranging its furniture; by discarding an overstuffed chair here, a bruised coffee table there, and shifting the remaining units to suit some new pattern. This approach might suffice if we could say with conviction that the university's current furniture is the product of rational planning, and not of historical accident. Lacking that conviction, we have adopted the view that a redefined baccalaureate program entails the redefinition of much else that constitutes a university. We need not only new clusterings of faculty, but a reshaping of the faculty's very role; not only new administrative units with buzz-word labels, but new types of administrative behavior; not only new curricular patterns, but new standards for curricular purpose and process.

Above all, we have lost patience with the prevalent model of university change - a model that equates change with sheer additive growth. We are not convinced that the accrual of new units at permanently inflated operating costs represents any meaningful capacity to adapt. Our goal is an institution capable of development and vitality even in a stable resource environment. And so we have worked with visible accomplishment at establishing a university dynamic that focuses neither on adding or discarding university resources, but rather on rearticulating them. Consequently, this proposal places the task of redefining the baccalaureate in the context of a university that has designed and is adopting a system for its own continual redefinition. (See section III, G.)

Features of the Proposal

Bowling Green State University's Modular Achievement Program integrates the following distinctive program elements:

- Curricular modules based on student development objectives
- Integrated academic and residential programs for short-term periods
- Specially developed screening, testing, and counseling programs
- Individualized academic programs based on student interest, achievement level, and motivation, and contracted through a faculty advisory committee
- Opportunities for out-of-class academic-vocational experiences
- Redefined general education component
- Emphasis on personalized field concentration and supportive diversification throughout the program
- Opportunities for a shortened baccalaureate
- Systematic evaluation of all program components
- Support system for curricular development and implementation
- Integration with presently existing university degree programs; not an independent college
- Emphasis on the interdisciplinary nature of learning and of pedagogical methodology
- More program options for faculty as well as students

II. Program Context

A. Institutional Background

As an average-size, multi-purpose, state-supported university, BGSU shares a profile that would fit 80% of this nation's state universities. Nevertheless, it has its own uniqueness. It is a place where exciting things are happening; where, in the spring of 1970, students would create a "new university" rather than simply shut the old one down; where faculty, at a conference on innovative teaching, would demand that the university place as great an emphasis on teaching as it did on research; and where a chief administrator would call for a restructuring of departments and colleges in order better to enable the university to meet the needs of today's students.

Bowling Green is an institution of 15,000 students, of whom approximately 13,000 are undergraduates and 2,000 are graduate students. They are taught by 700 full-time teaching faculty, divided into 37 departments under the Colleges of Arts and Sciences, Education, Business, and the School of Music. The university is located in northwest Ohio, about 20 miles south of Toledo in the city of Bowling Green, surrounded by farms and cornfields. The university first opened its doors to students in September, 1914, by welcoming 304 students and 21 faculty to its 1,000 acres.

The university began as a state normal school, dedicated to the training of teachers for the Ohio school system. While Bowling Green is no longer a normal school, it continues to remain among the top twenty in the nation in the training of certified teachers. The last few years have witnessed the building of a math-science complex, a circular student services building, a ten-story library, and new structures to house the Industrial Education Department and the College of Business. Also added to the campus recently is a twin-towered residence hall to help accommodate some of the 8,000 students who make Bowling Green the sprawling residential campus that it is.

As with many institutions of it genre, Bowling Green is a university in search of its reason for existing - a university in search of itself. It is struggling to achieve involvement without partisanship, relevance without pandering to ephemeral fads, creativity and change without forgetting that the essential qualities involved in the quest for knowledge remain unchanging and everlasting.

B. Student and Faculty Profile

Of the institution's 700 faculty members, 62% have doctorates. Recent appointments have included a number of scholars with national and international reputations.

The 15,000 students at the University come from all over Ohio, most states, and a number of foreign countries. They can be said to be typical of the student population to be found in any medium-size state-supported institution anywhere in the country. They are products of middle-class families, and are, in general, first-generation college students. In terms of their political, cultural, racial, religious, and ethnic orientations, they represent all points along the social spectrum. Nevertheless, Bowling Green can be considered as having a conservative student body and one in which political involvement is generally low and sporadic. In terms of intellectual abilities, the American College Test (ACT) shows that Bowling Green students, in the aggregate, score slightly higher than do students attending four-year, doctorate-granting institutions elsewhere in the country.

Turning more specifically to the characteristics of the entering freshman class of September 1971, one notes the following facts:

The freshman class is about evenly divided between men and women. Of the 2,982 freshmen for whom class rank was available, 25% ranked in the top decile of their graduating class, with 88.4% ranking in the upper one-half. The mean standard composite score on the American College Test for 2,805 students presenting test results was 22.2. Only 30% of the freshmen came from residences within a 75 mile radius of the campus. The 3,025 freshmen enrolled as follows: 1,361 in the College of Arts and Sciences, 908 in the College of Education, 554 in the College of Business Administration including the School of Journalism, and 112 in the School of Music. (Further information about the backgrounds and aspirations of the freshmen is contained in Appendix 1.)

C. Present Bowling Green Innovations

For at least the past three years, there has been a great deal of faculty and administration concern about whether the type of education attainable at Bowling Green is in fact meeting the needs of today's students. Early in the 1969-70 academic year, the Vice President for Academic Affairs (now Provost) called together a group of faculty and asked them to begin a study of the quality of the freshman experience. The most direct outcome of this study was Bowling Green's first Little College, which began operations on an experimental basis at the start of the 1970-71 academic year. During that year, the program brought together 90 students and four faculty in a course entitled "The Making and Manipulation of Images." The following year, the program was expanded to accommodate 200 students and 10 faculty. The purposes of the program were threefold: a) to demonstrate the interdisciplinary nature of learning and of pedagogical methodology; b) to change student orientations toward the university by providing them with a more personalized form of instruction; and c) to foster critical thinking and rational inquiry while taking cognizance of individual value systems. It is assumed that the Little College program will both continue and expand next year, either independently or in conjunction with one or a number of cluster college programs. (See Appendix 2 for the "Report on the First Year of the First Little College." This report is soon to appear in The Journal of Higher Education.)

In addition to the ten faculty who have taught in the Little College, a number of other faculty members have been involved in the establishment of Cluster Colleges in the Humanities and the Physical Sciences. This year (1971-72), 7 faculty and 100 students joined in a one-quarter living-learning experience in the humanities. The experience provided by the Humanities Cluster College was intended to meet all of the humanities group requirements of the university. It is assumed that next year a second Humanities Cluster will be established on a one-quarter basis. It will hopefully be joined by a one-quarter Physical Sciences Cluster, for which preparations have already begun. Each cluster will involve approximately 100 students and five to seven faculty. (See appendix 3 for the Humanities Cluster brochure.) Both clusters stress the multidisciplinary nature of learning, the interrelationship of all aspects of college life, and the importance of relating academic disciplines to broad thematic concerns.

On a number of other fronts, the university has been attempting to provide the student with more flexibility in his academic program. The Office of Experimental Studies offers a number of interdisciplinary seminars each quarter. In addition, it allows the student the opportunity to take from one to eighteen credit hours of independent study under the supervision of a faculty advisor. (This is, of course, in addition to any departmental independent study programs.) If a student elects to take a full quarter of experimental study, he may choose to spend this time off-campus in a community or government-related experience. The College of Arts & Sciences offers the student who is dissatisfied with the traditional major a Bachelor of Liberal Studies, which enables him to complete an individually tailored program of studies without declaring either a major or a minor.

In addition to providing a more flexible academic program, the university has also attempted to encourage increased faculty innovation in the courses they are presently teaching. Toward this end, a Conference on Innovative Teaching was held during the 1970-71 academic year. Each faculty member prepared a short precis of his innovation for presentation at the conference and eventual inclusion in a Bowling Green innovative teaching report. (See Appendix 4 for a copy of this report.) This year, a Conference on the Teaching of Values in Higher Education is being held to further encourage teaching innovation.

The president of the university stimulated further innovation this year by calling upon the faculty and administration to consider the creation of three new professional programs in the areas of technology, communications, and health and environmental studies. In addition, he asked for further study of the freshman experience, coupled with investigation of a possible redefinition of the baccalaureate. These joint ventures attest to the university's refusal to create a three-year baccalaureate by simply curtailing the general education component of the baccalaureate program.

The above innovations have emerged in a milieu of increasing concern for the university's capacity to accommodate prompt and orderly change. Possibly its most significant innovation has been its attempt, by means of the Academic Development and Evaluation Committee System (See Section III, G.), to provide the mechanism for allowing the university to function in a state of perpetual transformation while recognizing, not the appropriateness of change for the sake of change, but rather the inappropriateness of maintaining a static system in a world in which change for the sake of survival is seen as mandatory.

III. Program Description

A. The meaning of the baccalaureate degree.

The traditional baccalaureate programs are defined in terms of credit hours, courses, and years - in terms of procedures rather than objectives, effort expended rather than work accomplished. **To alter the time frame without altering that stage in the intellectual growth of the individual which is communicated by the granting of the baccalaureate degree,** it is necessary to restate the definition of the degree in terms of achievement. In the present state of complexity and diversity of degree programs, no single statement can cover all sorts and kinds of baccalaureate programs. Ⓐ

We are convinced that a very large number of baccalaureate degree programs contain components designed to achieve the following four objectives, and that at least some are designed to meet no objectives beyond those stated:

1. Development of cognitive and communicative skills.
2. Development of thoughtful personal value systems based on studies of man, his relationship to the universe, and to his fellow men.
3. Development of specialized skills and knowledge, usually directed toward career goals.
4. Diversification: exploration of fields of knowledge and skills supportive of the selected career area.

Traditional undergraduate patterns have labeled the first two goals "general education" and assigned them to the first two years of study; the latter two have traditionally been met by major, minor and elective studies in the junior and senior year. Ⓑ

The Bowling Green State University Little College course entitled "The Making and Manipulation of Images" has demonstrated that it is possible to accelerate the development of the student's ability and willingness to adopt modes of thought appropriate to advanced learning during the first quarter of the freshman year. The Humanities Cluster College program has demonstrated the possibility of using a group of traditional disciplines jointly to deepen and enrich the examination of value systems. The proposed cluster program in science promises to provide the non-specialist in the sciences with a comprehension of what scientific thinking can contribute to an understanding of man's place in the universe and to the search for personal values. Ⓒ

A program of freshman studies built around these three experiences, accompanied by appropriately selected practice and training in communications skills, should prepare many students for the beginning of those specialized and diversified studies which traditionally begin in the junior year. When additional cluster programs are available in the social sciences and in the creative arts, students in many specializations will find it possible to participate. Ⓓ In the first program, the three-year option will probably only be achievable for students in the humanities, social sciences, education, journalism, and the less technically oriented fields of business administration. This limitation is perceived as temporary, and may be overcome by the creation of appropriate new segments of the freshman and later years.

The Little College program will enroll 200 students next fall; the Humanities Cluster College will enroll 100 students next winter; the Science Cluster College will be organized in the spring quarter if funds are available. In addition, next year will see the initiation of a program of support and facilitation for the development and fostering of new MAP modules. The

Academic Development and Evaluation Committee (ADEC) is able and ready to speed the process of approval for experimentation, conduct evaluation procedures, and facilitate integration of successful experiments into the academic life of the university. ADEC will be working next year to support and guide the Little College and the existing clusters. If funding is available, it will also promote the development of new and varied program modules.

We propose to unite the Little College and cluster programs, supported by new patterns of instruction in communications, new curricular modules, and a new screening-counseling system, into a flexible time-frame, achievement-defined, baccalaureate program. This is not a "three-year" program, but one in which the student may move to graduation at a pace and by a path appropriate to his initial readiness, his own dedication and application, and the needs of his post-baccalaureate career objectives. To provide for individual planning and counseling with economically feasible class size, the program of each student will be made up of "modules" designed to meet certain objectives. Each student must achieve the goals of each module; for some modules, all students will utilize the same learning processes. For other modules, a variety of alternates will be available, not identical in time or mode of learning, but equal in outcome when properly selected and arranged to suit the course of each student's total academic growth.

Each student will complete modules which meet the following descriptions:

1. Communications skills module. Entering freshmen will build on the writing and speaking skills which they bring to their first college experience, to reach a level appropriate to the demands of subsequent college work. Some students will arrive at such a level before coming to college. Many will need only guided practice, and for these the communications module will also serve

a career-exploratory or a world-exploratory purpose. Some with high writing and speaking skills will be encouraged to explore other media. Students whose writing skills require intensive development may use conventional composition courses to meet the demands of this module. Completion is determined by skill level achieved, not courses or credits completed.

2. Little College module. Entering freshmen will participate in some core academic experience. Its purpose is the development of analytical and academic habits of thought, a comprehension of the aspirations and limitations of academic modes of inquiry, and a beginning appreciation of the potential for self-exploration and world-exploration available to the student who learns to bring academic techniques outside the classroom and laboratory. The core course in Images is well directed toward this purpose. In the first year it will serve this function for all students enrolled in the modular program.

3. Man-universe modules. The Humanities Cluster is a very satisfactory model of the purposes of these modules, but only one of a wide variety of potential forms. Each student should select a number of these modules appropriate to his career goals, previous study, and personal interests. Study of other cultures by work abroad, community and employment service in a cooperative education framework, study oriented to themes and problems of current public concern, and other variants of these modules should be made available. In the initial experiment, cluster patterns, independent study programs, and specially structured combinations of conventional courses will be used to meet this requirement.

4. Concentration and diversification modules. Depending on the program, goals, and progress of the student, this may occupy a calendar time-frame of one and one-half to three years following the freshman year. For some students,

it will be devoted to a heavier concentration than is now possible in fields of specialization. For others, it will involve a light specialization with extensive interdisciplinary effort. It will be an integral program for some, and structured of sub-modules for others.

Modules to meet this requirement may be established by a single department where appropriate; established by interdisciplinary committees (e.g., in Popular Culture, Environmental Studies); or devised by the student in conjunction with an advisory and examining board.

B. First Year of Operation

1. Summer 1972. During the summer, the continuing staff of the Little College program will train additional faculty members as needed to staff Images classes for 200 students. The staff of the Humanities Cluster College and the planning faculty of the proposed Science Cluster will hold brief workshops to select themes, texts, films and materials for the cluster programs.

Counseling staff assigned to this program will meet with the faculty of the various units and will hold a training workshop for faculty-counselors. Testing instruments and career counseling patterns will be established at the same workshop.

During the summer freshman preregistration program, 200 students selected from those who have expressed interest in participation will be enrolled in the Images course, appropriately selected communications modules, and exploratory courses from the regular university offerings, selected to suit the preparation and career goals of the student.

2. Fall 1972. The first two hundred students will complete the Images course, individually enrolled communications units, and exploratory course work. They will participate in the academic and career counseling program. With ADEC

system support, MAP faculty and screening-counseling staff will set up advisory-examining boards to approve modular programs for the individual student and certify student achievement as prescribed by those programs. These boards will counsel students concerning flexible-time programs, adaptation of modular programs to career goals, etc. Approximately 100 students will move into the cluster program to follow; some of these will plan toward upper division work by the beginning of the second year. All 200 will remain in the modular pattern, except those who transfer to professional training programs for which appropriate modules are not yet available.

The faculty of the Humanities Cluster will devote part-time to final planning for the winter quarter offering.

3. Winter 1973. The Humanities Cluster of 100 students and five to seven faculty members will conduct an intensive study program. Students planning flexible-time degree programs will also carry exploratory courses; others will not.

Little College faculty with ADEC system personnel and selected student participants will carry on evaluation of the first quarter's program.

The faculty of the Science Cluster College will spend part-time in final planning of the spring quarter offering.

Appropriately constituted groups of faculty and students (not necessarily involved in the modular program) will be assisted by ADEC to plan, seek approval, and prepare for implementation, additional cluster programs and alternate patterns to meet other modular requirements for students entering the program in Fall 1973.

4. Spring 1973. 100 students and five to seven faculty will participate in the Science Cluster College. Students planning flexible-time programs will

also carry exploratory courses; others not.

Humanities Cluster faculty, ADEC system personnel, and selected students will carry on evaluation of the winter quarter program. Examining-advisory boards will begin to certify student achievement to degree granting colleges.

ADEC-assisted establishment of new program modules for 1973-74 will move to approval stage and preparation for summer workshops and summer preregistration.

5. Summer 1973. Faculty training programs by Little College and Cluster College staff will expand the faculty available for teaching and counseling in the modular program. Preregistration will enroll 500 students in the *Images* and other, parallel, Little College modules as created by ADEC system action during the preceding year. Communications modules will also be available in a greater variety of forms than in the preceding year.

C. Academic year 1973-74: Second year of operation.

The program will parallel the 1972-73 program with these significant exceptions:

1. Fifteen percent of the freshman class will be enrolled.

2. Cluster Colleges will be available to complement all but the most rigidly sequential and prescribed programs of specialization; therefore, almost all interested students should find a flexible-time track available to them as an alternative to either conventional or modular four-year programs.

3. Some students who enrolled in September 1972 will have achieved equivalent junior standing, and the criteria for counseling in the flexible-time track will be better understood before counselors have to deal with the much larger student body of this second year.

D. Future Development

With ADEC assistance, the program will expand to provide a full modular structure including:

1. Skills modules. From each set, a number and type of module appropriate to the initial competence of the student and to his goals for specialization will be selected.
    - (A) Communications skills.
        - (1) Basic writing module
        - (2) Advanced reading-writing module
        - (3) Speaking-discussion module
        - (4) Creative writing module
        - (5) Foreign language module
        - (6) Journalism-film media module
    - (B) Intellectual, analytic, and creative skills.
        - (1) Little College modules: Images, Critical thinking, Scientific Method, etc.
        - (2) Methodology modules: Mathematics, statistics, computer programming, etc.
        - (3) Creative arts modules: music, art, drama, dance, etc.
2. Man and the universe modules.
    - (A) Divisional cluster programs: Humanities, Science, Social Science, Education and Pedagogy.
    - (B) Theme and problem oriented cluster programs: The Plight of the Native American, Space-ship Earth, the Meeting of the East and West, etc.
    - (C) Non-career cooperative education for credit: Vista, Project Interaction, Peace Corps, other volunteer service.

(D) Study abroad programs in language, anthropology, archaeology, service programs. (Includes modules earned at other universities, American or foreign.)

3. Concentration and diversification modules.

(A) Departmental specialization directed to graduate or professional school entrance.

(B) Interdepartmental or divisional pattern directed to professional school entrance.

(C) Departmental specialization directed to employment qualifications at graduation.

(D) Departmental or interdepartmental patterns directed to humanizing study, exploration of world and self.

E. Three Sample Student Program Patterns

The following sketches represent three of several possible core patterns of the Modular Achievement Program in terms of which students may shape their individual programs. These three represent reduced on-campus time tracks. Components of any of them may be incorporated by students electing to pursue a four-year sequence.

Pattern #1 can be initiated in Fall of '72. Pattern #2, with its prescription Co-op year, would be operational in Fall of '73, as would Pattern #3, which permits early pursuit of field concentration interests.

PATTERN #1

This pattern assumes a student with leanings toward the Social Sciences; 2nd and 3rd quarter modules are chosen from areas in which the student is not likely to concentrate.

	Approximate Hour Equivalencies
Fall '72 (1st Quarter)	
Little College/Communications Module	12
Skill Extension, remedial unit, or Student exploratory/standard university courses	8
Winter '72 (2nd Quarter)	
Humanities Cluster College	15
Skill extension, remedial unit, or Student exploratory/standard university course	5
Spring '73 (3rd Quarter)	
Science Cluster College	15
Skill extension, remedial unit, or Student exploratory/standard university course	5
Fall '73 through Graduation, Spring '75	
Field Concentration Modules	60
Supportive Diversification Modules	30

PATTERN #2

(ε)

(A four-year pattern involving three years on campus, intended to address the developmental needs of academically disadvantaged students without penalizing them with four years of college expense.)

First, second and third quarters

Structurally similar to PATTERN #1, but with greater developmental emphasis in all modules. Year terminates with a set of academic prescriptions which detail achievement discrepancies to be overcome by student in following year.

Second year

Work/study year. Screening and counseling unit locates suitable employment for student. While gainfully employed, student fills academic prescriptions established during his first year, returning periodically to campus for special assistance (i.e., reading, writing, speech clinics; math or language tutorials, etc.)

Third and fourth years

Upon adequate completion of prescriptions, student follows program similar to second and third year of PATTERN #1.

PATTERN #3

For student with strong achievement history in and high motivation toward a specific career or major.

First Quarter	Approximate Hour Equivalencies
Similar to 1st quarter of PATTERN #1	20
Second Quarter	
Field Concentration module	12
Supportive Diversification	4
Skill extension or remedial unit	4
Third Quarter	
Field Concentration module	12
Supportive Diversification	4
Skill extension or remedial unit	4
Second Year	
Humanities Module	15
Field Concentration Modules	18
Supportive Diversification	12
Third Year	
Social Science Module	15
Field Concentration Modules	18
Supportive Diversification	12

F. Modular Achievement Program vs. Traditional Program

Before proceeding further, it may be useful to contrast, on the basis of key characteristics, the MAP and traditional baccalaureate programs:

Modular Achievement Program	Current Baccalaureate Program Characteristics
1. Objectives	1. Objectives
Defined by achievement criteria in four major educational goal areas: Cognitive/Communicative Skills, Values, Field Concentration and Supportive Diversification.	Understood as served by fixed patterns of exposure to departmentally defined subject matter.
2. Individual Student Program	2. Individual Student Program
Defined by discrepancies between student's incoming competencies and area achievement criteria. Student 'contracts' for modules required to meet criteria. Program time span and course quantity variable.	Established major, minor, group and electives components with fixed course and student credit hour requirements. Possibility of adjustment to student achievement level minimal.
3. General Education Component	3. General Education Component
Defined as composed of Cognitive/Communicative Skills and Value goals. Base program addresses these with three intensive full-quarter modules (i.e., Little College and Cluster Colleges) normally but not always comprising the Freshman year.	Undefined, but assumed to be achieved by two years of required course patterns plus electives.
4. Major Component	4. Major Component
Defined normally as a 60 hour depth concentration which may or may not parallel departmental professional skills development; and permits modular arrangement of professional skills components to suit individual student vocational aspirations.	45 hour component whose vocational impact is most clearly a beginning replication of faculty professional skills.

5. Relative Weight of Program Elements Variable, according to student achievement level profile. The base program, against which individual modifications are made, suggests a 60-hour concentration in contrast to a 45-hour major. Dispenses with Minor concept. Concentrates one-year of Baccalaureate on redefined General Education goals.	5. Relative Weight of Program Elements Fixed, with emphasis predefined by hour requirements for major, minor, group requirements and electives.
6. Program Sequence and Time Period Variable. Modules addressing 'general education' or 'major' goals may occur early or late, depending on student's achievement level profile. One option of base program is oriented toward completion of Baccalaureate in three years.	6. Program Sequence and Time Period Fixed. Progression through Freshman, Sophomore, Junior, Senior level course patterns. First two years, general education; last two, major-minor concentration. A relatively fixed four year program with individual exceptions, but early completion requires accelerated exposure to fixed program content.
7. Program Impact on Curriculum Development Program demands systematic criteria and module redesign, since achievement information must be gathered to measure student progress *and* effectiveness of curricular design.	7. Program Impact on Curriculum Development Random, since initial student competencies are neither profiled nor employed to gauge effectiveness of established program.
8. Program Impact on Faculty Development Significant and systematic, since faculty pedagogic mission is continually problematic; i.e., "How to move student from achievement state A to achievement state B." Modules favor interdisciplinary rearticulations of curricula.	8. Program Impact on Faculty Development Random and insignificant, since program only requires measurement of student *against* fixed curricular requirements.

9. Student Screening and Counseling	9. Student Screening and Counseling
Essential, since configuration of student program depends on developed student achievement, ability, and motivation profile.	Incidental or therapeutic. Screening and counseling is basically an explication of University catalogue.
10. Program Support System	10. Program Support System
Explicit. ADEC designed to support all processes of program development, implementation and evaluation.	Tacit. Traditional academic units equipped basically to maintain, not to develop, implement, or evaluate.

G. The ADEC System

The Academic Development and Evaluation Committee (ADEC) system at BGSU is the decision making vehicle by which the academic community 1) determines new university-wide program priorities, 2) allocates human and financial resources to new program development, trial and evaluation, and 3) governs the integration of new with established university program commitments.

Background

The ADEC system was developed at the request of the University's prime academic policy making body - the Academic Council - in recognition of the need for more coherent practices in encouraging and evaluating new program development. In the Fall of '71, a literature search and sequence of visitations was conducted to determine what development support systems had been established at other institutions. Generally, representatives of the development concern elsewhere responded pessimistically to the notion that a development and evaluation support system could be initiated in a time of scarce financial resources. The more well established and staffed development offices traced their origins to the influx of new monies not earmarked for existing operating budgets, and questioned their own establishment had it depended on dollar competition.

Functionally, such offices tend to supply specialized and somewhat costly development support skills (audio-visual, TV, curricular experimentation grants, teaching-learning clinics) as a support service to existing academic units, which in turn largely define and pursue the development problem in unit terms.

In contrast, the solution sought by BGSU had to align with the conviction that systematic development procedures were particularly crucial in times of scarce resources, that a BGSU development support system must harness skills already present in the academic community, that development commitments had to be made in the full view of the university community, and that the basic source of academic development had to be understood as the individual faculty member rather than the department or college.

Faculty development energies have in the past been directed almost exclusively toward the need to address departmentally or collegiately defined problems. The ADEC system proposes to expand the faculty member's option to include those problems of the student and society which may not yet be focal in established academic units.

ADEC System Components

The basic elements of the ADEC system are:

1. The Academic Development and Evaluation Committee (ADEC). A sub-committee of the Academic Council which a) formulates and recommends development policy to that body, and b) oversees the development of all new programs not confined to established academic units.
2. The Program Initiating Agency (PIA). Any individual or group of individuals from the academic community (students and/or faculty) who have identified a problem which they feel should be programmatically addressed by the University.

3. The Development and Evaluation Pool (DEP). A group of faculty who have filed program interest dossiers with ADEC. The evaluation component of any program selected for development is staffed with activated DEP members on release time. Membership in DEP is by simple faculty petition together with submission of a program interest dossier.

4. The Program Development and Evaluation Committee (PDEC). Following Academic Council's approval of a new program development plan, ADEC combines PIA with selected DEP members to form a PDEC. The PDEC with appropriate release time and assigned resources is henceforth the body responsible to the university for the development and evaluation of the new program.

In addition to these structural components, the ADEC system is procedurally committed to:

1. Formative Evaluation: Conceiving of programs as institutional efforts to deal with problems, BGSU is committed to an evaluation of all phases of problem resolution, including program development as well as implementation. This commitment is intended to:
    a) Conserve institutional experience. With increased institutional flexibility as a long range goal, 'why' a program succeeds or fails is at least as important as 'whether.'
    b) Avoid re-invention of the wheel. Each completed program development ought to increase institutional sophistication in dealing with the next. No need to rediscover efficient procedures.
    c) Emphasize problem resolution as opposed to program defense. Sustained development evaluation will encourage PDEC to perceive its charge as problem solving rather than program building. As the development

effort more clearly delineates the problem, the developers retain flexibility to adjust program design for optimal problem resolution.

d) Conserve resource flexibility. Problems and their contexts are likely to alter rapidly in times of radical change. New emphasies or shifts may become desirable during a program's developmental phase, but can be integrated effectively only if the development process has been well rationalized and made visible.

2. Published Procedural Guides: If the ADEC system is to function as an expression of university commitment to program development and evaluation, rather than the private commitment of a specialized sub-unit, its procedures must be published, understood, and subscribed to by the broader university community. Procedural guides have been developed for the ten key operational phases of the ADEC system.

3. Programmatic Status of ADEC System: The ADEC system itself, if it is to remain useful and adaptive, must be viewed as a program in development, with resources committed to its own evaluation and re-design.

ADEC - MAP Interface

All university resources addressed to the Modular Achievement Program will be organized and applied through the ADEC system as follows:

In the Spring of '72, a distinct Program Development and Evaluation Committee (PDEC) will be constituted for the development, implementation and evaluation of each of the key MAP elements, with the MAP Director serving on each ex officio. These will consist of:

1. A Screening-Counseling PDEC comprised of the counseling staff and three faculty DEP members.
2. A Little College PDEC comprised of Little College faculty plus

three faculty DEP members.

3. Two Cluster PDEC's, one of Humanities Cluster faculty and the other of Science Cluster faculty, each with the same three DEP members.

In addition, a MAP-PDEC will be formed to supervise the implementation and evaluation of the overall program and guide the development of the second year expansion. The MAP-PDEC will consist of one representative from each prior PDEC plus three faculty DEP members.

Each PDEC will be charged with expanding its membership to incorporate student representation appropriate to the program development objectives.

The development of new curricular modules for the second and subsequent years will follow the pattern of combining the designers of each new module (PIA) with an evaluation team (DEP) to form a PDEC.

IV. Impact of the Program

Initial implementation of the program will involve faculty participation in the rationale and structure of a redefined baccalaureate. The experience of the first year will involve both students and faculty in innovative approaches to teaching, to learning, and to curriculum building. The evaluation and reporting of the program will involve a larger segment of the university community in the consideration of new approaches to the baccalaureate.

A. Impact on the Student:

Experimental as well as already proven approaches to the learning of analytic, cognitive and communicative skills will be made available to growing numbers of freshmen.

Discouragement and disillusionment with mass educational procedures in the freshman year will be diminished.

Individualization and acceleration of baccalaureate programs will be facilitated.

Improved support for early career planning and tailoring of academic programs to redefined career goals will be available

A milieu for easy utilization of off-campus and cooperative programs by individual students will be created.

B. Impact on the Faculty:

On the basis of evidence already gained from BGSU's innovative ventures, one can assume that MAP faculty will expand their interest and effectiveness in freshman teaching, improve their comprehension of undergraduate aspirations and frustrations, and gain expertise in evaluating both students and teaching methods.

Involvement in MAP evaluation will provide a cadre of faculty members interested in and (one may hope) committed to innovation.

Bringing faculty together across traditional departmental and disciplinary boundaries will reduce the impact of parochial conservatism on progress toward effective new programs.

Recognition of and reward for effective teaching will become a normal segment of the life of the faculty involved in these programs without reducing or contesting the value of research effort.

C. Impact on the University

Pending satisfactory evaluation, it is hoped that the freshman of five years hence will find a variety of time options and a variety of approaches to general education available, coupled with meaningful initial and continuing counsel in choosing among them.

Faculty acceptance of the degree patterns proposed here, supported by ADEC evidence of broad faculty approval of the teaching patterns involved, could lead to a MAP program encompassing the whole freshman class and supported by normal freshman instructional resources.

Clarification of baccalaureate goals and acceptance of new definitions by the university community should lead to acceleration of experimentation with new curricular structures at all levels.

D. Impact on other Universities

BGSU is a university of a size and age very widely found within higher education. The program eventually is designed to support itself out of the resources expected to be available for normal baccalaureate programs. The results of the local experiment should be immediately applicable to the decisions facing a large number of comparable institutions. No other institution will simply copy our teaching modules. The heart of this proposal is not a set of courses or requirements, but a means to stimulate their development. That means will be transferrable to institutions which could not and should not expect to absorb our curricular patterns, old or new.

V. Criteria for Evaluation of the Modular Achievement Program

The ADEC system will require that evaluative criteria for the Modular Achievement Program be established at three levels; 1) Modular Evaluation, 2) Program Evaluation, and 3) Context Evaluation.

The evaluation procedure at all levels must conform to the ADEC development and evaluation procedure guide for new programs, which among its stipulations requires an explicit statement of the following prior to program implementation:

1. Designed program outputs. What products are specifically anticipated as a result of the program's operation?
2. Output Criteria. What instruments and/or techniques exist or require development in order to measure the program's designed outputs?
3. Evaluation procedure. What is the explicit evaluation design?

Authorization to implement a new program is contingent on Academic Council's approval of the initiating agency's response to these questions.

1. Modular Evaluation

The PDEC for each of the MAP modules will devote much of its pre-implementation planning time to specifying performance criteria for its own module. Example: The Little College will wish to gather pre- and post-program Watson-Glaser and Omnibus Personality Inventory data on its own students as well as on an ACT-matched control group to evaluate its effectiveness in developing critical thinking skills. Another set of cognitive skill criteria relating to the employment of models in problem solving may require testing based on specially designed analogy exercises akin to those developed by Kenneth Boulding. The Humanities and Science Clusters will wish to coordinate use of these instruments, with additional testing appropriate to their distinctive output criteria (using standardized instruments where possible, i.e., CLEP and College Board).

The Screening and Counseling Module will require evaluation of its own procedures by a competent external team.

Since the MAP is predicated on student satisfaction of established achievement criteria, these criteria will have to be expressed as norm scores on the various standardized and developed evaluation instruments. For students on the three-year time track, norm scores for the first year of MAP will be equivalent to acceptable second year (sophomore) norm scores for established four-year programs.

2. Program Evaluation

The MAP Program Development and Evaluation Committee will be responsible for the integration of Module Evaluation procedures and results. In addition, the MAP-PDEC will establish criteria for and conduct participant student evaluation of the first year program.

3. Context Evaluation

Academic Council will require that the MAP-PDEC prepare and submit a systematic procedure whereby representatives of all established academic units and major constituencies of the academic community may post initial interpretations of the MAP program's impact on the university community. The MAP-PDEC will initiate this procedure in the Spring quarter of the program's first year, and incorporate the resulting observations in a first year evaluation report (prepared during the Summer following conclusion of the first year) that will combine a short range evaluation of program accomplishment according to pre-established criteria with a profile of the MAP-University interface.

The basic evaluation strategy, with experience-refined criteria at the Module and Program levels, and guideline adjustments to improve the MAP-University interface, will be repeated the second year.

CLASS SIZE AND HIGH SCHOOL DECILE RANK

FALL QUARTER 1971

ENTERING FRESHMEN

	600 or Over	500 to 599	400 to 499	300 to 399	200 to 299	100 to 299	Under 100	Total	Percent	MEN		WOMEN	
Men	178	115	202	214	328	288	150	1502	49.6%				
Women	151	117	175	221	350	338	155	1523	50.3%				
Total	329	232	377	435	678	626	305	3025					
Decile Rank										No.	%	No.	%
01	70	43	87	103	180	170	93	746	25.0	165	11.1	581	38.5
02	71	58	90	110	140	161	68	698	23.4	218	14.7	480	31.8
03	71	54	69	73	133	130	49	579	19.4	247	16.7	332	22.0
04	34	24	60	55	86	59	39	357	11.9	278	18.8	79	5.2
05	34	23	39	43	55	34	22	250	8.3	230	15.5	20	1.3
06	33	20	25	32	47	38	14	209	7.0	203	13.7	6	0.3
07	14	6	6	15	24	22	8	95	3.1	93	6.3	2	0.1
08	1	1	1	4	11	7	7	32	1.0	30	2.0	2	0.1
09	1	3	0	0	2	5	5	16	0.5	11	0.7	5	0.3
10	0	0	0	0	0	0	0	0	0.0	0	0.0	0	0.0
						No Data		43		27		16	

CLASS SIZE AND HIGH SCHOOL DECILE RANK

FALL QUARTER 1971

ENTERING FRESHMEN

	600 or Over	500 to 599	400 to 499	300 to 399	200 to 299	100 to 299	Under 100	Total	Percent	MEN No.	MEN %	WOMEN No.	WOMEN %
Men	178	115	202	214	328	288	150	1502	49.6%				
Women	151	117	175	221	350	338	155	1523	50.3%				
Total	329	232	377	435	678	626	305	3025					
Decile Rank													
01	70	43	87	103	180	170	93	746	25.0	165	11.1	581	38.5
02	71	58	90	110	140	161	68	698	23.4	218	14.7	480	31.8
03	71	54	69	73	133	130	49	579	19.4	247	16.7	332	22.0
04	34	24	60	55	86	59	39	357	11.9	278	18.8	79	5.2
05	34	23	39	43	55	34	22	250	8.3	230	15.5	20	1.3
06	33	20	25	32	47	38	14	209	7.0	203	13.7	6	0.3
07	14	6	6	15	24	22	8	95	3.1	93	6.3	2	0.1
08	1	1	1	4	11	7	7	32	1.0	30	2.0	2	0.1
09	1	3	0	0	2	5	5	16	0.5	11	0.7	5	0.3
10	0	0	0	0	0	0	0	0	0.0	0	0.0	0	0.0
						No Data		43		27		16	

FILMED FROM BEST AVAILABLE COPY

Innovations in Teaching at Bowling Green

A Post-Conference Packet

ED 084933

THE POST CONFERENCE PACKET

CONTENTS

Introduction Page 1

Conference Outcomes Page 3

Relevance on the College Scene Page 7
(Reflections by Harry Gyman)

Index to Conference Précis Page 9

Conference Précis Pages 13-101

THE CONFERENCE ON TEACHING INNOVATION
BGSU, 24 April, 1971
Introduction

The notion of having a conference on innovation in the college classroom began with the chance exchange of what several people were attempting in their own classes, followed by speculation about how many others were trying things of which we knew nothing. Since each of us felt a personal gain from the shared ideas of others (some of which we had tried in our own classes), we thought that perhaps others would like to share and gain in a similar fashion--and selfishly, we knew that we would each get personal benefits from such an exchange of ideas.

But we did not want just "another conference". We felt, and knew that others agreed, that the typical conference format was sterile, We did not want to be talked at. So we decided to limit this first conference to only those who had similar interest in innovation and who had actually attempted it at some level of their own definition. By making it a conference of doers and then giving them ample time for personal interaction, we intended to give dignity and status to their innovation attempts, provide a forum, and begin the establishment of a "community of scholars" from many disciplines.

To achieve these ends we established a fairly simple design. Our first invitation was broad: an announcement to all faculty of our intent and a request for reply from those interested. We received over 100 responses. To these we then sent a specific charge that they write up a brief "précis" of some innovative teaching practice they had tried, including a statement of purpose, of procedure, and evaluation of its success. From this invitation we received about 50 replies, much criticism that we were being exclusive, and requests to be an observer. We denied all such requests and tried to re-explain our purpose.

Those who submitted a précis were then randomly assigned to one of seven groups using only two criteria: no two persons could be in a group from the same department and we wanted as wide a range of type of innovation in each group as possible. Our intent was to increase communication among disciplines and stimulate idea sharing. Our format was created to help them develop. We sent each member of a group copies of all of the other six members' précis, with instructions to read them in advance of the conference looking for points of similarity of innovation and underlying purpose.

Our second mailing had suggested the possibility of material display and demonstrations of procedures, but the amount of time required to fill the requests made the latter impossible. Instead, we provided time and opportunity on the afternoon before the conference for several demonstrations. Some materials and equipment were on display at the conference.

The keynote of the conference was involvement. To that end, all other details of the conference were bent. There was no formal luncheon with head table, but an informal buffet to which groups went on their own schedule. There were two brief talks--an opening by President Moore and a closing by Vice-President Coffman--both in support of the idea of innovation as a necessary ingredient on a university campus. And then the participants came; we gave them name tags and we sat down at tables, each group separately, to explain innovations, ask questions, suggest improvements, and make requests of the University for resources we perceived as essential to promoting innovative teaching.

Responses of those participating were great--everyone gave of himself. And now we submit brief copies of their précis to all of you, our colleagues, in the hope that you may also benefit from our conference if you wish to do so. We would like this to be the first step in an on-going, inter-disciplinary dialogue on innovative teaching. We hope to provide access to such a dialogue by means of informal meetings and an occasional newsletter next academic year. Please join us by sharing your ideas about teaching and constructive criticisms of the ideas of others.

Sincerely,

The self-anointed ad hoc committee
on innovation

Richard Giardina, Political Science
Morris Weinberger, Education
Gary Woditsch, Institutional Studies

CONFERENCE OUTCOMES

Our seven workshop groups were asked to close the conference by sharing their view of constraints on the innovative climate at Bowling Green as well as their recommendations on how that climate might be improved. The following is a summary of the major issues raised and recommendations made by the workshop groups. Unless otherwise noted, the issues outlined below express a consensus of concern on the part of our conferees.

Constraints on Innovative Teaching

1. The absence of reward structure sensitive to faculty teaching innovation argues a lack of substantial concern for innovation in the classroom.

2. Departmental structure, whatever its virtues, tends to discourage cross-disciplinary effort and emphasize advancement criteria that have little to do with classroom innovation. One workshop summary observed: 'Departmental allegiances tend to grow to a level which is not ultimately in the best interests of the University, the College, or the student; this is probably a result of the current lack of alternative foci for allegiance'.

3. Allied closely with 2 above, faculty professional requirements tend to discourage involvement with classroom innnovation: "Some chairmen think that teaching innovation, without a doubt, takes time away from research and publication..."

4. Some felt that curricular group requirements tend to lock-step both students and faculty.

5. There is tension between teaching innovation and what the university community might judge to be 'effective teaching'. The fear that truly experimental efforts might generate bad evaluations (hence, be characterized as ineffective) works as a constraint.

6. One permeating constraint is a widespread willingness on the part of both faculty and students to deal with the external trappings of an intellectual life that can have meaning only as an internal and highly personal process. There is a tendency to suspend the issue of internalizing academic values and settle for 'playing the academic university game'.

7. The Quarter system, many felt, established a frantic pace that discourages innovative effort.

Characteristics of Innovation

While recognizing that classroom innovation is not constrained to follow any special pattern, the conferees took note of certain common trends that seemed to emerge from an inspection of their own innovative efforts. Among them were:

1. A sense that innovation tended to flow not from a desire to be clever

or unique, but rather from a commitment to grapple with a very personal question: "Why am I (a teacher) here (in front of students)?"

2. Most of the innovations seemed concerned not so much with imparting content as with "teaching toward recognition and internalization of intellectual behaviors." Innovations launched in this vein are likely to display a great deal of feedback between student teacher, with high emphasis on student involvement in course design and evaluation. In the words of one workshop summary:

   'Students are likely to be as involved as possible in designing course goals, means to achieve those goals, and methods of evaluating student progress. Certain constraints (e.g., books, course topic) will probably be set by the professor ahead of time; but the more that students design the rest of the course, the more they are likely to learn because of the self-commitment to the design process.'

   'There might be a maximum of experience (e.g., field trips, games) to serve as "fodder" for intellectualizing, and as an "anchor" to bring the abstract theory into clearer focus vis-a-vis relevance and application.'

   'Where texts are used in introductory classes, there might be an explicit explanation of how an intellectual uses a text...'

   'Within the community of innovating teachers, there is likely to be a great degree of toleration--radically different designs may fit within the same standards of performance and coherence.'

3. In response to a concern about where innovation should be emphasized in the university much emphasis was given the early years of a student's college career, but the final consensus appeared to be that innovation was needed 'across the board....Flexibility ought to be encouraged at all levels.'

Recommendations

All conferees concurred in recommending:

1. That some modification of the reward system for faculty be instituted which acknowledges and encourages innovative teaching achievement.

2. That some organization akin to our present faculty research committee, with an appropriate budget, be established to provide resource support and release time for faculty engaged in teaching experimentation.

3. That mechanisms be developed which encourage and promote team teaching and inter-disciplinary courses, especially those which cross departmental lines.

4. That means be found to stimulate active departmental support of teaching innovation. ("We feel there are individual faculty members who are interested in innovation, and the university administration

is encouraging it, but how can we institute this interest and encouragement at the department level?")

5. That the conduct of internal BGSU conferences on teaching innovation become standard periodic practice, possibly under the aegis of the Provost's office.

6. That some continuing exchange be established which would circulate information on teaching innovation to interested faculty, with special emphasis on 'home grown' experimentation.

7. That the assumed conflict between research and teaching innovation be challenged, and that the faculty research commitment be redefined to include qualified teaching experimentation and pedagogic research. "...teaching innovation may actually stimulate creative aspects of research."

One of our workshop groups went to considerably effort to frame its recommendations in provocatively concrete terms. In the spirit of their desire to stimulate action, we recount their specific recommendations in toto:

1. A Committee on Innovative Instruction should be established. The Committee, consisting of five faculty members, will have an office, an administrative assistant, one or more typists, a budget and recognized status.

2. The Committee on Innovative Instruction will have available a budget for ex post facto, line-budget, release-time reward for innovative teaching. The Committee, through the administrative assistant (i.e., top-level secretary), will arrange necessary support services for innovative teaching efforts (e.g., arranging for specific classroom support hardware configurations, handling the administration for interdisciplinary courses, etc.). The office will maintain a cross-indexed permanent file of innovating instructors for faculty consultation, thereby facilitating communication. The Committee will also support more flexible equipping of some classrooms throughout the campus, as aids to innovators.

3. A principal activity of the Office will be the Quarterly Conference on Teaching Innovation. The Conference attendance will show a 50% turnover in participants, with planning for each conference carried out by a committee of 5 from the preceding conference, and administrative arrangements to be carried out by the Office staff.

4. Proceedings of the Quarterly Conference will be edited by the administrative assistant, duplicated, and given wide distribution for faculty and students.

5. One course each year should be, from the faculty member's point of view, free of traditional evaluation threats, though the faculty member should be encouraged to evaluate his attempts at innovation.

The conference concluded in marked enthusiasm for the value of the day's interchange of faculty ideas and experiences. There was also a feeling that the innovative spirit, while much in need of support, encouragement and visibility, was indeed alive and well and living at BGSU. Those of us who had brought our private innovative ventures to the conference gathered our papers and left with a sense that they were not so much private as part of a shared community of concern. One participant summed it up in response to a question about what innovative strengths BGSU might claim. First contender for the list was a rather spunky "Us!".

RELEVANCE ON THE COLLEGE SCENE

Harry Gyman

"Relevance" is a word frequently bandied about on college campuses today. Oddly enough, faculty, students, and administrators all use the term, though in this paper I shall not be concerned with administrators' usage and their purposes in employing it. I shall begin with a few remarks on faculty use of this term, and then end with a brief discussion of student usages.

I have always found it incredible that any faculty member should say that he wishes "to be relevant" in his teaching. Such a statement is absurd, revealing, to my mind, a lack of understanding of his role as teacher, a confusion between the boundries of his professional role and his role as a citizen, and accepting the student's criteria of "relevance" to a ridiculous degree. Such a statement may even indicate a serious lack of commitment to his disciplines. The faculty, taken collectively, deals with ALL the products of human minds and hands. As someone said a long time ago, "Nothing human is foreign to me." And the faculty, regardless of area, is always immersed in studying all things human, no matter how unpleasant and nasty. From this it follows that ALL areas of study are relevant for the ever-continuing process of Man studying himself and his creations. It further follows that no faculty member need feel defensive about his field nor about roles as teacher/professor/researcher. A negative posture in this context is totally uncalled for! Any faculty member who understands the role of teacher cannot question the relevance of this role for himself and the student.

A faculty member who wistfully sighs he wishes "to be relevant" in his teaching is probably confusing his professional role with his role as private citizen. Since the two roles are never inseparable, each faculty member must construct for himself a balance between the two. Over-emphasizing one over the other does justice to neither. In terms of teaching, the problem becomes one of showing the student how one man has dealt with the inherent conflicts between the two roles. All disciplines raise serious moral questions of their relationships to and effects upon the society at large. I maintain it is the duty--that unpleasant word--of the teacher on the college level to expose the student to this question and to try to show him how at least one professor handles it. But such a course may require the professor to give of himself as a person to a degree many academics would find abhorrent. It is safer and more comfortable to remain the "unattached intellect." I venture the guess that were faculty to expose themselves more personally, students would reduce substantially their clamor for "relevance."

The other side of the coin is what students have in mind when they yell for "relevance." I believe there are two dimensions here: social problems, and personal interests and needs. With respect to social problems, many students feel that academic work is not where the action is. I have already shown the silliness of this contention. I go one step further: if a student is so hot for action in the real world, let him leave school and go into the streets. Nothing is a better example of an argument in bad faith than the student (or professor, for that matter) who screams academia is "not relevant" while he remains safely in school. I am not speaking here of those students who know that studying society is a legimate starting point for eventually changing it. We have, unfortunately, too few students of this kind at Bowling Green State University.

But things are worse. Many students insist that faculty become activists. Personally, in my present physical condition, I could not dodge a balloon thrown at ten paces. What revolutionary in his right mind would want me beside him on a barricade? The point is, obviously, each faculty member, willy-nilly, makes his contribution toward change or the holding back of change in the everyday business of doing his job. This is unavoidable, in the nature of the case, regardless of academic discipline. Students have a narrow view of ways in which change takes place. We can broaden their perspectives. For example, if students feel that direct action is morally superior to academic activity, let us suffer their illusion. We KNOW that in one way or another they will come to us for the intellectual tools necessary for the analysis and understanding of those aspects of social life they wish to change. Some of us may even help them. We may gently suggest that, God forbid, the student change himself somewhat before he worries about changing the world. We may help him develop that high level of commitment that underlies all efforts at social change. We may even point out when caution will serve him best. And those of us who are against various forms of change may argue why these ought not take place. In brief it is our job to help the student know what he is about. It is even our job to tell the student what he ought not do in his efforts at change.

But all these sorts of faculty actions presuppose feeling for students, as persons, an acceptance of responsibility for students beyond our usual, convenient delimitation of responsibility to mere formal contact. And if we accept these broader duties, then the students' demand for "relevance" in terms of their personal needs will be largely met. For many students want desperately to learn of that real world out there, but they want to learn of it in terms that may help them understand themselves in that world. And we can help them. Each of us has constructed and shaped his life as best he can in that hard world. And this personal creation has entailed for each of them giving up of some ideals and cherished beliefs, the centering of the lives of some of us on security and safety in an unsafe world, and the all too human capacity to sell out and compromise under pressure. The most important knowledge we have that is relevant for students is our own personal histories about living a life. We should always try to use our histories in connection with courses and contacts with students. For by doing so we can help ourselves look at ourselves as people, and also help students mature and grow.

INDEX TO CONFERENCE PRECIS

AUTHOR	DEPARTMENT	ARTICLE TITLE	PAGE
Applebaum, Charles	Math	Textbook Exploitation in Math Classes	13
Bauer, Otto F.	(Speech), now Ad.	My Experience in Teaching Speech 405	14
Bishop, Ralph D. Bortz, Alfred B.	Sociology Physics	Syllabus for Scientific Problems in Modern Society: an Interdisciplinary Course, Firelands Campus	16
Blanchard, Carlene B.	English	American Lit Survey: Innovations in a "Conventional" 300 Level Course	18
Browne, Neil Haas, Paul	Economics	Random Thoughts on the Purpose of a Problem-Solving Format	20
Carpenter, Richard	English	Innovations: Senior Honors Seminar, and Team-Teaching Introduction to Fiction	22
Edwards, Bruce	Economics	Use of Sections to Suit Student Needs	24
Eriksen, John	Political Science	Role-Playing in 2-week Intensive Survey Study: Problems of Communism	26
Finkelstein, Raphael	Math	A New Course of Mathematics for Prospective Elementary School Teachers	29
Flanders, James P.	Psychology	Informal Innovations in Teaching	30
Fundaburk, Lila	Economics	Allowing Free-time for Independent Study During Meetings of Soviet Economy	35
Fyffe, Darrel W.	Education	Testing Innovation	36

AUTHOR	DEPARTMENT	ARTICLE TITLE	PAGE
Giardina, Richard C.	Political Science	Role-playing in Teaching International Organization	38
Graubart, Erik F.	German/Russian	Teaching English to Students of Foreign Languages	42
Graue, Lou	Math	A Technique for Encouraging Students to Learn to Read a Mathematics Text	45
Greenberg, Bonita Hood, Stephen B	Speech	Innovations in the Speech & Hearing Clinic	47
Harris, William N. Harris, William M.	Education	A Device Used to Project Images of Objects	48
Harris, William N. Lee, Verlin Daniels, Glenn	Education	Auto-Tutorial Program: Science in the Elementary School	49
Hartman, Charles F.	German/Russian	Relieving Those Language Lab Blues	51
Hartman, Charles F.	German/Russian	Teaching Survival Swimming	52
Herman, George	Speech	Little College Experiment in Teaching	54
Jones, Terry	Political Science	Multi-Media Presentations	56
Jones, Wendell	Music	Jazz - History & Literature	58
Kumler, Marvin L.	Psychology	Innovations: Antidote to Faulty Assumptions	60
Lineback, Richard H.	Philosophy	Innovative "Ethics"	65
Littlefield, Loy	Philosophy	Three Experiments	67

AUTHOR	DEPARTMENT	ARTICLE TITLE	PAGE
Moore, Michael	History	The Good Days	69
Morton, Beatrice K.	English	Participation in Introduction to Drama	71
Newman, David S. (Hurst, Peggy)*	Chemistry	1) Science, Technology & Government * 2) Thermodynamics 3) Chemistry 100	72
Phillips, Trevor J.	Education	Teacher Role - Modification in Phil. of Ed.	74
Ptak, R. L. Stoner, R. E.	Physics	An Unstructured Physics Survey Course	76
Rahdert, Karl G.	Management	The Unstructured Class as a Study in Organization Theory & Behavior	78
Robb, Kenneth A.	English	"Black English" -- History of the English Language	79
Roller, David C.	History	Experimental Orthodoxy with "U. S. History 1776-1865"	80
Scherer, Donald Baxter, William Kumler, Marvin	Philosophy [illegible]logy Psychology	"Sex, Drugs & Moral Responsibility" - An Interdisciplinary, Informal Approach	83
Spader, Peter H.	Philosophy	Encouraging Student Participation in a Dialogue Oriented Class	85
Spreitzer, Elmer	Sociology	The Five-Question Technique	88
Stout, Robert J.	Home Economics	Oranges & Pumpkin Pie: Sensitivity Training	90
Weber, Waldemar C.	Mathematics	Developing Teaching Effectiveness in Mathematics	91

AUTHOR	DEPARTMENT	ARTICLE TITLE	PAGE
Weinberger, Morris J.	Education	How to Reach the Teacher	92
Woditsch, Gary A.	Institutional Studies	Paradigm Potpourri	95
Wright, Marjorie	Art	Experiment & Innovation for Art 101	97
Young, Charles W.	Education	Investigations in the Teaching of Social Studies in the Elementary School	101

TEXTBOOK EXPLOITATION IN MATH CLASS

Charles Applebaum

Most mathematics courses are taught in lectures. The student comes to class and copies down both what the instructor says and writes on the board. Except for an occasional reference, the student rarely uses his textbook as a prime source of information. Thus, he never learns how to acquire information about mathematics from a book. As a result, without a teacher around to explain things to him, he is lost.

During the Spring, 1970 quarter, I found an excellent opportunity to try something new. With my class of ten students, I was planning to use a textbook which I considered ideal for the average student, who, with some application, could comprehend the material. For each class the students were assigned a given section in the text to read for understanding. A complementary set of exercises was assigned with each section and the student was asked to do as much as he could on his own. If a point was unclear in the text, he was to try to fill in the details himself. Above all he was to come to class prepared to ask questions on points he didn't understand or on ramifications of the material under study. Class time was spent answering the student's questions either by short, impromptu lectures or by guiding him in answering his own questions. If the student was completely lost on a section, then he was expected to admit it. This situation was dealt with by asking him enough questions to pinpoint any confusion. Also, if the student was still confused after class, he was encouraged to discuss his problem privately in my office.

The experiment worked fairly well. At first the students were uncomfortable asking questions. But as time went on they asked more and better questions. By the end of the quarter, I observed a marked improvement in many of the students.

I tried this method again in the Fall, 1970, and in Winter, 1971, in a more advanced course. However, the textbook was much more difficult and so I had to modify the plan by lecturing on the material that was too difficult for the student to grasp on his own. Also, the class in the fall quarter was much larger and more heterogeneous than the previous spring quarter. Hence, I found it hard to keep all the students on an even keel.

One thing I may do differently next time would be to give periodic quizzes and occasionally check-up homework. I prefer to allow the student to work at his own pace, but when the class size becomes too large to monitor the progress of the students by direct contact with them, then the use of quizzes and checking homework becomes necessary.

MY EXPERIENCE IN TEACHING SPEECH 405

Otto F. Bauer

When I was teaching Speech 405, the Semantics of Oral Discourse, I attempted to implement the following innovations in my teaching practices:

1. I drafted a series of discussion questions based upon the reading, setting aside the first three classroom sessions of each week for small group discussion of these questions, and concluding the week with a "lecture" that sought to resolve the various issues that arose in the discussion meetings.

2. I attempted a "wholistic" approach. The textbook I used confronted the student immediately with virtually all of the basic concepts of the course matter. As the course proceeded, he was required to arrange the subject matter into a pattern, necessitating a knowledge of the various interrelationships present in the course content.

3. Both peer and professor grading were used. Peer grading was based on paired-comparisons in the discussion groups and the instructor's grading was based on a written/oral report and also the dividing of the points achieved during the term into a final grade of A, B, or C. (Students were guaranteed at least a C in the course. They were informed during the term that their attendance or performance was approaching either the D or F range.)

4. An optional oral final examination based on the discussion questions that were used during the course was made available to the student if he thought that his performance on such an examination could raise his final grade. Students who chose this option selected at random a chapter in the text and then responded to the discussion questions that had been prepared for that chapter and which he had had in his possession since the beginning of the course.

I was quite pleased with the results of the above undertakings, particularly with the discussion-lecture approach, in which the students developed many of the issues and perplexities by themselves and then openly sought explanations and responses from the instructor later in the week. I thought it was helpful to them to grapple with problems that they observed in the material rather than depending upon me. The "wholistic" approach proved to be initially frustrating to the student, but as the group progressed and the various perspectives became apparent to them, I detected a great joy in their ability to "complete the puzzle."

Over the years I have devoted a considerable amount of time to study an experimentation with peer grading. I feel that my present approach to the problem has several crucial provisions. Conducting peer grading in the context of a minimum grade in the course and also the option of raising the grade through a special final examination seemed to allay many of their fears and allowed them to enter a grading problem with more honesty.

Since this is my second year away from the classroom, I would probably repeat the above undertakings before making any significant changes in them.

SCIENTIFIC PROBLEMS IN MODERN SOCIETY

Ralph D. Bishop, Alfred B. Bortz

Too often higher education is so specialized and compartmentalized that students view the artificial separation of disciplines as reality. But the reality of today's world is that all disciplines interact. Society affects the progress of science and technology just as new technology often creates revolutionary pressures in society. Tomorrow's leaders will have to bridge the gap between the sciences and humanities created by this artificial separation of courses.

As instructors in the natural and social sciences, we have designed a course directed toward helping the student bridge that gap. The (edited) syllabus for this interdisciplinary course, "Scientific Problems in Modern Society", follows this brief description of the course as it stands now.

This quarter is the first time this course has been offered. Under the honors program, we are meeting with twelve selected students one evening each week for three hours. We view our role to be moderators of class discussion. We place special emphasis on student participation and on independent research.

Because of the nature of this course, an informal setting is appropriate. The class meetings rotate among the living rooms of the instructors and the students. The participants enjoy fresh cookies, hot coffee, and heated discussion. In this setting, all the participants have contributed something of value to the discussion.

For certain class meetings, other faculty members or professionals from local business contribute their expertise. The philosophy instructor has already attended one session. A member of our history faculty and a nuclear engineer will attend future meetings. When a certain student research project was presented toward the end of the quarter, the president of the Sandusky Chamber of Commerce was invited to hear an idea which may have an impact on the entire community.

Student research projects will consist of in-depth analyses of technologically-related social problems. Besides analyzing the problems, the students will propose solutions. Certain projects will be selected for class discussion and criticism.

The outcome of this course is uncertain at the time of this writing, but the beginning is encouraging. The need for interdisciplinary courses is great. We hope other Bowling Green faculty develop this or other interdisciplinary courses in the near fut[illegible]

(Course Syllabus)

Scientific Problems in Modern Society is a course designed to examine the interrelationships between technology and society. Recognizing that technology is perhaps the most important force of our era and that it will continue to have a constantly increasing impact on our lives, it is necessary that our business, government, and educational leaders understand its dual potential for good and evil if we are to succeed in dominating technology rather than being dominated by it. It is to this end that we have chosen to analyze dominant and pressing scientific and social problems of our time. Our intention is to provide solid information and in-depth analysis from several fields of study.

The organization of the course, as a seminar, takes an interdisciplinary approach and is to be conducted on a very informal basis. The student will have an opportunity to do independent research on selected topics of his interest.

Alfred B. Bortz
Instructor in Physics
Firelands Campus

Ralph D. Bishop
Instructor in Sociology
Firelands Campus

AMERICAN LIT SURVEY

Carlene Bagnall Blanchard

The students are divided, spontaneously and voluntarily, after a short period of milling around, getting acquainted, into four permanent groups which are concerned with studying together, sharing insights about the works assigned and presenting to each other two papers or projects. A teacher-directed syllabus is used and some guidance is given at the beginning of each discussion session as to pertinent questions which each group might discuss. As we developed more group techniques and more curiosity about issues involved in the literature (standards, methods of analysis, relation to other works, etc.) these leading questions came more and more from the students themselves.

I usually suggested that we spend half the period in small groups, then come together for a discussion of the whole; sometimes, however, the small discussions were going so strongly that we went ahead with those. For two long evening sessions per group we considered each other's papers or projects. These had been dittoed three days ahead of time so that each member of the group could read all the appers and come prepared to help with their evaluation. These sessions were lively and, for the most part, people met deadlines. Comments from students centered not only upon agreement, disagreement, approbation, etc., but also upon organization, structure, communication, etc. ("Your sentence here is messed up." "You don't really get into the main idea until too late." "The spelling is a little confused!")

The second papers or projects were usually far superior to the first; although not always. My impression is that under the pressure of producing short papers for their peers, students came up with far more interesting and creative papers than the conventional productions which met the prof's requirements (and sometimes lean too heavily upon "authorities.") One student even confessed she had had something of a terrible shake-up when she realized that for the first time in her life her work was coming under the scrutiny of her peers!

Several unusual projects were attempted: correlations of music and literature, art and literature, etc. Some students dared to plunge into areas they felt unprepared for; one who had never had an art course produced six paintings to accompany her analyses of six poems. I was often surprised at the complexity of topics which students chose: "Existentialism and Transcendentalism in American Literature", "The Image of American Women as Found in the Work of Henry James", "An Analysis of Hawthorne's Style in The Scarlet Letter". Often I had to caution students that they weren't expected to write the definitive work on the subject.

My one consistent reaction to the innovations, both in throwing onto the students the responsibility for discussion and the responsiblity for creating works of their own, is that in spite of some initial floundering, students soon developed a sense of "we're all it together" and became concerned to share, some rather deeply-felt concerns, and to regard themselves and the prof as involved in something which may never be "finished". I observed them setting up study groups outside of class; many told me that for the first time in their college lives they felt "connected" with other students. Often their reactions to each other's work was something like "Did _this_ come out of _us_?"

Not all the groups "clicked" at all times; often people didn't show up and I exerted the pressure of reminding them that group participation was a requirement of the course and that if they chose to opt out it would mean failing the course.

I found that all students needed considerable training in group discussion techniques. Next time I plan to devote two or three days at the beginning of the course to this.

My own personal involvement in the innovations has varied; usually I'm exceedingly pleased at the way the groups are able to go ahead on their own and I affirm the idea that the best teacher is the one who phases himself/herself out of the job. Occasionally, however, I have some qualms that I'm not preparing the world's best lecture on Wallace Stevens and his poetry. When this happens I find myself taking a more active role in the discussions and I don't hesitate to share my ideas and insights.

On evaluation of students' work, I reserve the right to the final grade, taking into consideration the comments of the group and the student's performance on essay-type mid-terms and final exams.

RANDOM THOUGHTS ON THE PURPOSE OF A PROBLEM-SOLVING FORMAT

Neil Browne and Paul Haas

1. We conceive a purpose of education, especially an education in economics, to be the development of a problem-solving technique. In economics, as in all social sciences, we believe that problem-solving involves at least two major steps: a) the establishment of the tools of the discipline, and b) the application of those tools to complex problems.

2. Being a social science, economics, or the tools thereof, cannot reduce the alternatives to a problem to the one right answer, but we are capable of reducing some alternatives to a few which may be considered economically accurate. Thus, in the end the final policy choice would be among fairly equal alternatives.

3. Good policy decisions cannot be implemented without the use of sound economic reasoning, but on the other hand, sound economic reasoning is only a necessary step towards sound policy decisions. Thus, a student also should be exposed to a method of deciphering the biases, non sequiturs, etc., and should be encouraged to draw his own conclusions rather than to rely solely upon the "expert", the professor.

4. The problem-solving format is incorporated into the course through the use of current periodical articles. After the development of certain core material to the course, specific problems are discussed. For instance, the current inflationary situation will be evaluated by looking at articles written by a labor economist, a radical economist, a businessman, and a traditional economist. Since the solutions posed probably differ significantly, class discussion is used to search for the conflicts, the reasons for the conflicts, and then attempts are made to draw from the articles to form one's own conclusions about inflation and its causes.

5. Our reaction after one quarter is that the paper (below in edited form) appears to serve two purposes. First, from the early stages of the course the students have some type of information on how we plan to evaluate their exams. Although this paper does not solve all the mysticism around that first exam, it appears to reduce apprehension and to provide a workable framework to comment on the exam. Second, some students who have honestly tried to incorporate the procedure into their thinking process appear to like the results. The evidence for this statement is that comments about the paper have been favorable. Of course, this conclusion assumes that the students who think that the paper has no purpose, will speak out and tell so! - a rather heroic assumption.

A SUGGESTED FORMAT FOR PROBLEM-SOLVING

How does one grapple intelligently with the problems he encounters? Since this is perhaps man's most perplexing task, learning should have as its major objective the development of a method which the learner can use to confidently cope with dilemmas he will face. Intelligent decision-making is probably the one activity which most reassures an individual that he is both alive and significant. What follows is an attempt to describe a technique for polishing the learner's inherent ability to choose a particular course of action among other alternatives. Hopefully, this method of problem-solving can increase one's understanding of why he learns anything in the first place.

This suggested format is based on the assumption that the two processes which should be emphasized in problem-solving are (1) reasoning and (2) creativity. The following questions should serve as a check list to remind you that many considerations are involved in making an intelligent decision:

I. Have you decided what your position is and can you communicate it to others succinctly?

II. Can you explain why you have reached your particular decision? When someone is trying to convince you that his ideas are correct, you should find it helpful to ask the following questions: (a) What is his purpose? (b) What are the reasons which he provides? (c) Is his evidence convincing? (d) Have you accepted his arguments simply because he is an expert? (e) How should his conclusions affect what you believe?

III. Have you demonstrated an awareness of counter-arguments to your position and have you shown their defects?

IV. Does your response to a problem display any originality or imaginative flair?

V. Have you demonstrated an understanding that different values (moral assumptions) lead to different conclusions?

This format has been designed with the hope that it will increase the student's enthusiasm for learning as well as his skill in decision-making. If it is successful it should do several things. It should (1) increase his confidence in his ability to learn, (2) help him to enjoy solving problems, (3) teach him to rely on his own judgment, (4) diminish his fear of being wrong, (5) make him more tolerant and flexible, (6) give him a high degree of respect for facts.

SENIOR HONORS SEMINAR AND TEAM-TEACHING INTRODUCTION TO FICTION

Richard Carpenter

I have undertaken two kinds of teaching which might be described as innovative; the first, an Honors course which I teach every year but in differing ways, and the second, a team-teaching experiment with a graduate student in the department. I shall discuss, briefly, each of them:

A. The Honors course is for senior English majors for the most part and the subject-matter is flexible, usually selected in general terms by the instructor but altered in various ways by the class. For the past two or three years I have been working mostly with aspects of contemporary thought as they are related to literature, but I have included film, attendance at concerts--avant garde, experimental concerts such as those by Don Wilson, attendance at lectures and the theater. The whole class goes to these whenever possible, and the results are discussed at a subsequent meeting. The attempt, obviously, is to bring together different experiences. In addition--and this is innovative for most English classes--the reading ranges far afield into anthropology, psychology, philosophy, aesthetics, and so forth, as well as in literature. The motivation for this kind of innovation is to enlarge the perspective of English majors by giving them experiences in other areas of thought, and the arts, rather than only in literature.

The outcome of this type of course is generally good, the students feeling that they should have more of such freedom and interdisciplinary studies. They usually find that their perspectives have been broadened, that they have encountered ideas of importance with which they must deal. Since the class is small a good bit of interpersonal involvement also takes place. The principal problems arise usually from the innovative approach: the classes are very open, unstructured, free-wheeling, with the subject of the day often abandoned almost at the outset and other issues and ideas taken up. This bothers students who are used to having clearly delineated goals and structure. It also results in considerable interpersonal tensions, with students who like this atmosphere berating the others, who want more structure, for being brainwashed into conformity. Skating between these tensions without smoothing them over and taking command of the class is not easy. But it is necessary to resist the temptation to become the "teacher" and run the class in the way some students would prefer. Another problem is the orientation toward grades and assignments. Some students find it very difficult to work hard without these pressures, and it is only through a kind of group expectation that work will be done, that anything is done at all, with some students. With others they work their heads off, because I always provide a great deal of reading, maybe twice what the ordinary course would assign. (I don't "require" it; I "provide" it.) As for grading, I try to softpedal this as much as possible, and usually give A's to students who come to class faithfully and do the final project based upon journals of their responses to the reading and discussions, and other experiences, the project may be a collage, a poem, or a dramatic presentation.

As time goes on I intend to make the class more and more active, rather than a matter of discussion and reading, with more role-playing, dramatization, creative work. It is a bit difficult to do this because seniors are pretty well set in their ways.

B. The team-teaching class was less innovative, but did have the novel feature of a regular faculty member joining with a teaching fellow in instructing a sophomore class. The idea was to get dialogue coming from our different points of view, so that the class would see that more than one approach to fiction (the class was Introduction to Fiction) was possible. In addition to this we also met the class in three different ways: whole class, split into two classes with an instructor, split into small-group discussions with a student leader but the instructor merely sitting in from time to time. The classes, all of them, sat in circles rather than in the regular seating arrangement. They were also supposed to have large name-cards on their desks so that other members of the class would get to know them quickly.

The success of this innovation was mixed. The large class was plagued by lack of participation and the expected dialogue between my teammate and myself was rarely forthcoming, mostly because we discovered that we agreed on interpretations of the literature. We did not feel it honest to concoct differences in order to dramatize. The small classes went quite well, in a more conventional fashion, and the small groups went quite well, although some students felt they lacked direction.

If I do this sort of thing again, I would want to have some method of screening students to find those who like innovation; I would work out gambits with my teammate to stimulate discussion; and I would allow the students more freedom of choice in the reading material. I would also ask the small groups to prepare some kind of presentation, using as much imagination as possible, rather than just having a discussion.

USE OF SECTIONS IN ECONOMIC PRINCIPLES TO SUIT STUDENT NEEDS

Bruce Edwards

I have begun a long run program aimed at customizing the Economic Principles course to satisfy differing student needs. Since individualized instruction is prohibitively expensive this program has concentrated on such items as (1) specialized courses and/or sections for different purposes, (2) conscious and controlled variation of approach between sections, (3) use of common materials and testing procedures (except when consciously varied for experimental reasons) so as to create maximum reliability when attempts are made to make comparisons between student knowledge of economics, attitudes toward the subject after taking the course, etc.

Economics 201-202 at BGSU has historically included the entire range of students from those who want a one semester service course to those who expect to major in Economics or Business. Roughly half of the students have been Business Administration majors who are required to take both Economics 201 and 202 as a pre-requisite for further business courses. The other half have a wide variety of majors and reasons for taking the course--in some cases it is required.

I began, in Fall 1966 with Economics 271, now, a one-semester survey course and re-numbered Economics 200 which is designed as a terminal course primarily for those who might not take any further Economics.

In the Fall 1969 when I taught Economics 201 I intentionally adopted a new textbook intending to make use of the mathematics training required expecially of Business students. I was hoping to cover certain topics more thoroughly and more rapidly in this way and freeing more time for other topics. This was justified since Economics 200 created an alternate for those who could not handle the math.

The book used in 1969-70 was an unfortunate choice. I have switched books for 1970-71, I think with more successful results, although the over-all intention has not changed.

I adopted standardized testing instruments for repetitive use to measure variation in results under different styles of class organization. The primary organization form used lectures three times a week to a group of 80-120 students. The fourth hour in some quarters also was a lecture, but usually it is in quiz sections of 20±, meeting once and organized on such varying principles as: desire for discussion, fear of math, convenience of class hour, desire for unlimited cuts, joint teaching (by myself and an assistant) discussion led only by a graduate assistant, etc.

Only casual evaluation has been done to date, suggesting that non-random relationships are small if significant at all. The major problem has been complications in establishing special sections as part of normal registration procedures. The Economic requirements of other curricula, the sensitivities of Professors regarding autonomy in their own classrooms, lack of catalog copy, and the needs of other programs within the Economics Department have all tended to limit the scope and flexibility of the project. I think these problems are largely unavoidable since the establishment of obviously experimental situations frequently generates undesired "Hawthorne Effects".

This quarter for the first time I am moving into the second half of the course, Economics 202. Next Fall I hope to have an entire lecture section with a de facto pre-requisite of Statistics and/or Math. I believe the data acquired to date will generate a reference base (i.e., control group) and perhaps some tentative results. Beyond this I hope to move into the question of whether the choice of major is really significant in identifying the types of programs students need and/or want. Also the question of enlisting some colleagues so as to get a reading on the significance, if any, of instructor personality characteristics holding class organization style constant.

PROBLEMS OF COMMUNISM

John G. Eriksen

PURPOSE: The course was designed as a two-week (11 day) intensive survey study in original writings of Marx, Engles, Lenin, Stalin, Khrushchev, and present leaders for students of advanced standing in social and natural sciences degree programs who had not taken courses in the origin and development of communism.

CONTENT: The course sought to explain:

- the background and development of communism;
- the function of communist ideology;
- the organization of power;
- the structure of party and government;
- strategy and tactics in foreign affairs;
- socialist camp tensions;
- socialist camp prospects - strengths and weaknesses.

OBJECTIVE: The course sought to provide maximum exposure to primary materials on communism that would offer the basis for understanding the framework within which communist leaders develop the rationale for decision-making involving domestic and foreign policy stragegies.

ORGANIZATION: The class, which was offered three times, consisted of between 30-35 members and was organized as the Politburo of the C. P. S. U. Each participant identified with one of the current members. The class met from 8:00 a.m. to 12:00 p.m. and from 1:30 p.m. to 4:30 p.m. each day for lecture and discussion.

So that in-depth lectures could begin on the first day, all reading assignments for the course were completed before the first session. After roles were identified, the entire class was assigned a broad topic to be explored through sub-topics individually prepared that reflected the position or activity of the Soviet personalities to be played. Where a class member possessed a specialty or experience not directly represented on the Politburo, such as a specialist in a geographical area, he became a "special adviser" to the group. Biographical material was studied so that each class member was reasonably familiar with the position of his counterpart.

CLASS PROCEDURE: Lectures over assigned materials covered six days. The last three days were given to a "Politburo Conference" on the assigned topic. One class topic selected was

"What considerations should guide Soviet political strategies following the possible cessation of bombing by U. S. forces in North Viet Nam". Each class member was assigned a sub-topic which considered a separate question related to the major topic. These papers were presented orally to the class and included recommendations for foreign policy strategies in the major geographical or political areas. Assessment of the United States and its allies from the point of view of Soviet commitments and attitudes was the most important aspect to be considered in preparing the paper. Also important was the ability of the class participant to use appropriate Soviet phraseology and to maintain a credible characterization of Soviet strategic alternatives.

ROLE-PLAYING APPROACH: After a brief explanation of procedure to be followed, the class adopted a format that permitted total submersion in communist-type patterns of discussion. Members referred to themselves as comrades and each sought to express attitudes based on accurate references from the literature. Classroom visual aids consisted of portraits of communist leaders, charts of the Politburo, propaganda posters, etc., so as to effect a typical Soviet setting.

Debate among class members was encouraged and the instructor "corrected" source references, "explained" contradictions or moderated conflicting positions. In every case where arguments were not based on reasonable extensions of text materials, more research was urged.

Approximately one-half of the class period was given to lecture during the initial six days; and following the oral presentation of position papers for three days, a final class session consisted of a "de-briefing" or an evaluation session which included criticisms, suggestions, and an assessment of role-playing as a learning device. An examination concluded the tenth day in which opportunity was afforded for each participant to discuss materials from the perspective of any non-Soviet position.

CONCLUSION: Participants rather consistently stated that role-playing in the study of problems of communism:

(1) intensified interest and participation in classroom discussions,
(2) permitted greater understanding of communist attitudes and Soviet explanations,
(3) permitted more rapid assimilation of the content of the reading material,
(4) expanded awareness of the complexities and problems of Soviet decision-making, and
(5) developed a more critical attitude toward weaknesses in non-communist political strategies toward the Soviet Union.

Participants also felt that visual aids were very useful in creating a "positive" attitude toward the experiment and in maintaining role characterizations.

EVALUATION: The role-playing technique was adopted in an effort to present Soviet materials within a problem-solving framework as opposed to descriptive lectures on communism or discussions that emphasized "differences" between communist and other political systems. Its principal strength seemed to be found in the ability of the participant to formulate useful and effective evaluations of the Soviet system. Among weaknesses in the approach was that not all students in the program had similar background preparation as might be found among those in a given major course sequence even though role-playing tended to minimize this disadvantage. Also, there was little opportunity to verify the accuracy of individual positions taken by a class member. Nevertheless, many of the papers were presented with such accuracy that they became actual statements of future Soviet actions.

The instructor considered this experiment quite valuable and feels that this approach offers a greater opportunity for effective classroom innovation than conventional discussion and analysis from a non-communist point of view of communist materials.

A NEW COURSE OF MATHEMATICS FOR PROSPECTIVE ELEMENTARY SCHOOL TEACHERS

Raphael Finkelstein

My idea of revising the mathematics curriculum for prospective elementary school teachers arose when I observed how the traditional course and textbooks tend to scare the learner and to give him the impression that mathematics can only be done by eggheads in ivory towers. Consequently I began my course with new approaches to the most basic of all mathematics, arithmetic. I demonstrated how slow, unnatural and cumbersome the traditional methods are and showed how, for instance, carrying can be divorced from arithmetic by a new technique called reducing. I also developed a new division procedure which eliminates the finding of trial quotients as well as some new subtraction procedures. I next showed that the methods could be extended to arbitrary number bases and that these methods generalize to a study of algebra. In this way it is possible to regard arithmetic and algebra as part of the same subject and not as completely different subjects.

We next generalized and extended our methods to multivariable algebra by developing the system of spots and concluded our course with some basic concepts of computer programming and elementary geometry.

The new ideas in the course were well-received by the students and many of them said they understood the ideas of algebra and geometry for the first time in their lives.

My ultimate idea in presenting the material in this manner was to show the students that there is another approach to mathematics besides the logical, axiomatic approach which completely dominates current textbooks. The algorithmic approach to the subject helps to eliminate the fear of mathematics that so many of the students bring to class and also shows them that one can have fun with mathematics.

At present Miss Nancy Kamenik and I are coauthoring a book which incorporates all the above ideas as well as some new ones.

INFORMAL INNOVATIONS IN TEACHING

James P. Flanders

What Prompted the Innovations?

My attempted innovations have been geared primarily to introductory courses in social psychology and educational psychology. When about to become a college teacher, I was groping around for a rationale for my teaching efforts. I nourished some doubts about the lecture-midterm-paper-final method of teaching introductory courses, but lacked a good rationale and a better mousetrap. Then Dr. Ronald Gentile, now at SUNY in Buffalo, directed me to Bloom's (1968) Learning for mastery, where I found the rationale I have adopted.

Briefly, Bloom's (1968) rationale assumes that the vast majority (not all) of students can master the course content, if suitable environmental conditions for learning for mastery are provided by the instructor. The method advocated by Bloom (1968) and others is a simple administrative procedure that can be introduced easily in virtually any course, especially introductory courses. The procedure consists of breaking down large blocks of content into small, manageable units. which are mastered individually. If a unit is attempted but not mastered, then immediate feedback is given and the student can try again without penalty for failure. The Bloom model of learning, a paraphrasing of Carroll's (1963) educational model, holds that the primary difference between students in a course is in the amount of time needed to master the content (i.e., students' aptitudes). If "A" or "B" grade indicates excellent or good performance, then 90% of students should be capable of achieving an "A" or "B". The usual large portion of grades below B reflecting a substantial of mediocre and poor performances, can be attributed to a variety of factors. Opponents of Bloom and Carroll would argue that a large proportion of grades below B reflects "those who have it and those who don't" at most and "those who did it and those who didn't" (For whatever reason) at least. Bloom and Carroll would reply that a substantial proportion of grades below B indicates possibly too little time for material assigned, too much material assigned, too difficult material assigned, lack of individualized instruction, etc. and always poor teaching. Johnston and Pennypacker (1971) summarize: "This position asserts that the generation of bell-shaped distribution of test scores of grades wherein a small, fixed percentage of students attain the objective of the course is a blatant statement of our failure to adequately arrange environmental events to facilitate the academic success of each student--to teach effectively (p. 220)." In short, if we assume reasonable amount and kind of content is covered, the Johnston and Pennypacker (1971) position is that a substantial proportion of mediocre or failing grades defines poor teaching. Obviously, if factors out of the instructor's control, such as admission of a substantial proportion of students with inappropriate aptitudes for the course, then a substantial proportion of mediocre or failing grades is not the result of poor teaching. Such circumstances likely occur, I believe, in advanced courses and in graduate courses, where (a) course content may be beyond students' aptitudes and (b) good selection procedures for entrance of students into the courses are incredibly difficult to devise. However, the Johnston and Pennypacker (1971) position is probably applicable to most introductory courses.

Are Bloom and Flanders Dreaming? Can Procedures for Mastery Really be Devised?

Do the above strong statements solve the issue? No, because it remains to this point an empirical question in doubt as to whether environmental events can be arranged so as to facilitate mastery by virtually all students. Does such evidence exist? Yes, is the evidence overwhelming? No, but almost. What are the findings? The findings are in agreement that certain procedures do enable virtually all students to master the course material (Ferster, 1968; Keller, 1968; Lloyd & Knutzen, 1969; Malott, 1968; Johnston & Pennypacker, 1971; McMichael & Corey, 1969; Myers, 1970; Sheppard & MacDermot, 1970). Basically, the approach used is to break down the content into manageable units, which are mastered individually. Credit (usually points) is earned by mastering units and carrying out projects. Immediate feedback on each unit is given with no penalty for failure, and distributed learning is rewarded. The only constraint is that of time, so constraints (usually deadlines or time limits) are imposed in reasonable accord with academic resources available (instructor's time available). Thus the essence of learning--feedback--is provided. Feedback is provided with reasonable immediacy. And distributed learning is engineered, which results in superior retnetion over the long run. Finally, the units to be mastered can consist of any effort which can reasonably be expected, and mastery can be defined to apply to algebra as well as esthetics.

One final point should be made: The very procedures which in fact elicit the best academic performance are immensely popular with students. The near-universal approval and enjoyment with the procedures described in the articles cited earlier is nothing short of unbelievable.

What Has Flanders Done at BGSU?

Thus far I have taught five introductory courses using unit mastery procedures. My course evaluations have not been quite as precise as the Johnston and Pennypacker (1971) procedures, but I have tried a wider variety of unit mastery criteria than embodied in the research cited above. Specifically, evaluations of innovations reported below are subjective, excepting number of students achieving mastery.

The first attempt of employing unit procedures was carried out on an Introductory Education Psychology 302 class of 50 in Spring Quarter 1970. A text written for mastery procedures using groups and student group leaders was employed. I selected leaders and trained them a week in advance. Unit mastery for students consisted of written tests with fill-in answers and oral responses to essay questions, all evaluated by the group leaders. I monitored the evaluation proceedings by evaluating group leaders' evaluations periodically. I handed out a quick-and-dirty course evaluation form. Conclusions: All 50 students mastered all 20 units. Evaluations by group leaders of unit mastery were fair and competent. The text was too easy, and the main complaint was that later units were so easily mastered that the course no longer was a challenge. Subjectively, the students loved it.

The second attempt came in Fall Quarter 1970, where a class of 27 all mastered about a dozen units in Introductory Social Psychology. Criteria of unit mastery was on a multiple-choice test, where answers were graded and always a conversation assured that the student was conversant with that chapter's material by myself or a graduate assistant. Again all students mastered all units, but the multiple-choice questions were terrible.

The third attempt was in Winter Quarter 1971, where a 50 person class of Ed. Psych. 302 students worked on 10 units. This time I threw in a new element: I gave points for unit mastery, but only enough to get a C. One raised one's grades by doing a special empirical project to actually apply learning principles of the unit mastery. One could also earn points by participating in a debate-advocate session, where the Advocates format was used. Criterion for unit mastery was a one-page (or less) typed answer to essay question, sometimes a case solution problem. One student did not master all units, but the remaining students did. Answers to questions were generally good, and the projects were nothing short of great for students in an introductory course. To adequately assess student reaction to the course, I devised a student course questionnaire. Test-retest data for about 300 students and one-administration data for 500-700 students from both BGSU and Toledo University has been collected but not analyzed yet. From glancing over the responses to this course, however, results are overwhelmingly, strongly positive.

The fourth attempt is with a 40+ student Ed. Psych. 302 class Spring Quarter 1971. I have improved the texts and kept the course largely the same as decribed immediately above, and I expect equal success.

The final attempt is with a 30+ person Intro. Social Psych. course Spring Quarter 1971. Better text materials have been selected, and a new twist added. For each of the 11 units, there is a group of two or three students in the class. Each group takes a unit. I will give them all the essay questions from the instructor's manual and each group the multiple-choice questions for their unit only. Each group will then generate a pool of 12 multiple-choice items, 12 fill-in questions, and 5 essay questions on their unit, which I will check and hand back to them. For mastering any unit other than one's own unit, a student will approach the group, who will randomly determine by drawing of numbered cards the four multiple-choice, four fill-in, and 2 essay questions which that student will attempt. Each group will evaluate other students' mastery on their unit. Students will be able to master a given unit for two weeks only, so the group spends only a limited time on evaluating other students. Evaluations will be evaluated and constantly be monitored by me. Each student in a group will be responsible for only 3 essay questions, where (a) the elements of a correct answer have been already OK-ed by me and (b) each student is an expert on each question. Points beyond unit mastery can be earned by empirical projects, where on I *require* collaboration in two-person groups. *Expectations*: I expect these procedures to fulfill the expectations of the unit mastery approach and, in addition, teach students something about evaluation of student performance. In addition, no one man could ever give as much (or probably as detailed) feedback to students as the specialization into and even within units provides. I expect excellent projects, as such projects seem far less awesome and far more fun when peer social reinforcement is engineered in the support of academic goals. *Limitations*: With more advanced courses, it becomes less realistic to expect that students taking the course for the first time can adequately evaluate their peers.

Conclusions

Objectively, *for introductory courses*, it is concluded that unit mastery procedures can insure mastery (i.e., good or excellent, B or A) of course content for virtually all students. The potential for students to provide feedback and social reinforcement toward academic goals such as unit mastery and special projects (a) is enormous and (b) can be engineered with relative ease (cf. "fifth attempt" above).

Subjectively, procedures mentioned above are less effortful to administer from the instructor's viewpoint than conventional procedures. I am becoming convinced that 30% of total content for all introductory courses should be a special project that meets five requirements (a) appropriate to goals of the course, (b) required, (c) collaboration in pairs required, (d) relatively modest, and (e) is fun. The object of introductory courses is not only to survey a field but also to motivate further interest in that area. The social reinforcement of peer-interaction-collaboration on a fun project is (a) far more powerful than instructor motivation, (b) far more lasting over the long run, and (c) can be employed toward academic goals. From these considerations, I will end with a testable hypothesis: Introductory courses which employ such a project will result in a significantly greater proportion of students who enroll in advanced courses in the area in question than introductory courses which employ no such project, regardless of subject matter or instructor.

References

Bloom, B. S. Learning for mastery. In UCLA Center for the Study of Evaluation of Instruction Programs, *Evaluation Comment*, 1968, *1*, No. 2.

Carroll, J. B. A model of school learning. *Teachers College Record*, 1963, *64*, 723-733.

Ferster, C. B. Individualized instruction in a large introductory psychology course. *Psychological Records*, 1968, *18*, 521-532.

Johnston, J. M. & Pennypacker, H. S. A behavioral approach to college teaching. American Psychologist, 1971, 26, 219-244.

Keller, F. S. "Good-bye teacher . . ." Journal of Applied Behavior Analysis, 1968, 79-89.

Lloyd, K. E. & Knutzen, N. J. A self-paced programmed undergraduate course in the experimental analysis of behavior. Journal of Applied Behavior Analysis, 1969, 2, 125-133.

Malott, R. W. Contingency management in an introductory psychology course for 1000 students. Paper presented at American Psychology Association meetings, San Francisco, 1968.

McMichael, J. S., & Corey, J. R. Contingency management in an introductory psychology course produces better learning. Journal of Applied Behavior Analysis, 1969, 2, 79-83.

Myers, W. A. Operant learning principles applied to teaching introductory statistics. Journal of Applied Behavior Analysis, 1970, 3, 191-198.

Sheppard, W. C., & MacDermot, H. G. Design and evaluation of a programmed course in introductory psychology. Journal of Applied Behavior Analysis, 1970, 3, 5-12.

SOVIET ECONOMY

Lila Fundaburk

1. Innovation Period: Winter quarter, 1971. Innovation: More freedom for student.

2. Course in which innovation was tried: Economics 474. Soviet Economy. Reason for innovation: attempt to get greater student response and interest in the course.

3. Innovation: Giving students more free time to develop own ideas and approaches to the course.

This was done by arranging the class so that the lectures by the instructor, and the text book material filled the first half of the course, giving the students a fast survey of the material. The latter part of the course then was available for planned activities by the students, primarily in giving material which they ultimately developed as term papers, or in some cases material closely related to information they developed as term papers.

4. Results: The ones who entered into a spirit of enthusiasm for the subject liked it, and the ones who did not, did not like it. (Problems) However, I felt that the class was probably too unstructured during the last part, and probably should have had more participation from the instructor. I made an effort to leave them very much on their own during that time, though I was in the class, but they generally, I believe, felt this themselves. That they would have like for themselves and their instructor to get together more closely each period, rather than just leaving it so much to each of them more individually as leaders for the session. Several said that we should have arranged the chairs in a circle. This implies more totality of approach than we actually had. I believe that to have been the greatest weakness of the course. That the courses need more freedom, but also a unity, so that they are more completely integrated, student and instructor, for each session, though with considerably more freedom, than the conventional setting of the past. I would conclude from the comments of the students, that they want the instructor to guide them toward appropriate materials and to be there for sessions, but they also want more freedom in making their selections and contributions, and want all sessions to be periods of exchange, rather than have the professor or the student dominate in the particular presentations. They want more student independence and responsibility, but with professors encouraging, challenging and sharing all sessions and with a continual interchange of ideas and experiences.

TESTING

Darrel W. Fyffe

An innovation which has been quite rewarding to me, one that was suggested by a former professor of mine, is that for each objective - type test which is administered to my classes the students record their responses twice. The first response is the normal exam procedure in class, each student marks his responses on the answer sheet provided.

Then the student keeps his set of questions, along with another answer sheet, and is instructed to take the exam home and return the answer sheet at the following class meeting. The students are permitted to read any book and speak with other persons in arriving at their new answers. These answer sheets are then scored with both marks being recorded.

My purpose in using this innovation is twofold. First, it forces students to immediately review the topics, find more information and learn more concepts. The students cannot walk away from class feeling that they can now forget that field of knowledge. In fact, the students have shown an intense concern over the take-home exam.

Second, it provides an opportunity for interaction to occur between class members and their peers. The resulting exchange of ideas seem beneficial to our later class discussions. Each student gains by his effort expended in defending his view.

My role during this exam time is that of a proctor. I am the one person with whom students may not discuss the test. I encourage them to make a real effort to improve their scores and to better understand the concepts.

I score the exams by machine and determine two grade scales, one for each exam, by the same means I would use if only one exam were used.

Because I release my questions it is necessary for a new exam to be produced for each quarter (or each section if times are widely separated). Many of my questions are reused or revised and are acceptable on later exams. Students who wish to study for their exams will find that a copy of each past exam and key is on file in the Closed Reserve of the library.

Evaluation of past results (for two quarters) shows that the mean score for the exams increases by about 8 percent on the take home part which gives each student a feeling of greater accomplishment.

My thoughts on the procedure are that it will be continued because students exhibit a much greater knowledge of the topic when we do discuss the results of the tests. Many students come to class with notes, references, and text page numbers to support their view. This considerable amount of work, on their part, certainly is enriching.

Student evaluations each quarter have indicated appreciation for the testing procedure. They generally speak highly of it and rate it as one of the strong points of my course.

The one problem associated with this procedure is that students often have valid arguments that a question is poor. Their added work makes this happen more often. Even this, though, serves to improve the quality of my future exams and I have no present plans for changes in the procedure itself.

TEACHING INTERNATIONAL ORGANIZATION:
THE USE OF ROLE-PLAYING TECHNIQUES

Richard Cono Giardina

It is my contention that a course in international organization must deal not only with the structures and processes which have been created in attempts to regulate transnational cooperation and conflict, but also with the structures and processes which should be created to lead the world to that type of order which transcends the order maintained presently by nation-states. As a result, any course in international organization must relate facts with values. It must, on the one hand, make the student aware of present activities and capabilities of international organizations. On the other, it must allow him the possibility of dealing with the question of how international organizations can be made more effective in coping with the pressing problems of today's world.

The above are the types of concerns I attempted to deal with in the course. Specifically, my goals were threefold: to make students aware of 1) the types of problems which international organizations should be handling; 2) the ways in which international organizations are presently handling these problems; and, 3) the ways in which these problems ought to be handled if the world is to survive through the 21st century. In order for these goals to be attained, students would have to come to a recognition of the limitations of presently-constituted international organizations in terms of their ability to cope with these problems, and of the role of nation-states in imposing these limitations.

In order to pursue the first goal of awakening students to the types of questions with which international organizations should be concerned, the course isolated six problem areas: 1) economic development; 2) environmental control; 3) peace-keeping and war prevention; 4) arms control and disarmament; 5) the attainment of human dignity; and, 6) educational reform. These six problem areas were to be handled within the framework of four sets of lecture/discussions, the first two coming at the beginning of the course and the second two at the end. The first two were concerned with the past and the present, both discussed in terms of theory and reality. The second two dealt with the future, and specifically with international integration, world order, and the formulation of alternative world utopias. Assigned readings were from Plano and Riggs, Forging World Order, Falk and Mendlovitz, The Strategy of World Order, Gregg and Barkun, The United Nations and its Functions, and Claude's Changing United Nations.

In pursuit of the second and third goals, students were asked to assume certain roles. Classes met twice a week for two hours each. During the first of each week's sessions, the students were to assume the roles of delegates to the relevant organization, council, or committee dealing with the problem in question. They were to study how the particular body functions and also to write position papers reflecting the views of the country which they represented. For this latter task, they were encouraged to use the UN Monthly Chronicle and the Carnegie Endowment's Issues Before the General Assembly, as well as to write the relevant missions in New York for information.

During the second of each week's sessions, students were to assume the roles of professionals concerned with the attainment of world order who were part of a World Order Research Group (much like those presently constituted by the World Law Fund). As such, they were to act as individual experts attempting to deal with the same problems as the national delegates in ways conducive to the attainment of such a world order. They were expected to read widely in the above-mentioned books, as well as in Roger Fisher's International Conflict and Behavioral Science, Daniel Bell's Toward the Year 2000, the Foreign Policy Association's Toward the Year 2018, and Scanlon and Shield's Problems and Prospects in International Education. After so doing, they were to write up position papers reflecting their own views concerning how the problems should be handled.

In order to have a point of focus for each of the problem areas, a draft resolution was worked up by a graduate student in consultation with the professor, which would attempt to 1) state the problem at hand; 2) mention what had already been done to deal with the problem; and 3) stipulate an optimal solution to the problem. These six draft resolutions were to be given to each of the students at the start of the course. They were to be used by them in formulating their two sets of responses, those from the nation-state perspective and those from the individual expert perspective.

The twelve role-playing sessions (two for each of the six problem areas) were to be conducted entirely by the students, with the graduate student presiding and the professor interjecting his own comments as needed. No attempt was made to ensure absolute conformity to international organization decision-making processes; and there was never any voting. Rather, the major concern was with the type of amendments the national delegations and individual experts might make to the proposed resolutions, and the ways in which they would attempt to "sell" their amendments to the others. Furthermore, no attempt was made to recreate the membership of each of the bodies in question. Countries were chosen on the basis of how well they represented certain ideological and/or geographical blocs. The resulting list contained the USA, USSR, France, UK, China (Nationalist), South Africa, UAR, Portugal, Isreal, Tanzania, Mexico, Brazil, India, Guinea, Sweden, Ethiopia, and Poland, with either one or two students making up each delegation. A further international flavor was added by having a British student represent the UK and an East African student represent Tanzania. In addition, a State Department official from the Office of Southern African Affairs participated in the session dealing with the attainment of human dignity.

The various delegations were encouraged to form themselves into blocs, corresponding to the major ideological trends they saw present in the world today. As a result, they established an East, a West, and a Third World bloc, with each bloc usually chosing a single spokesman to kick-off the debate by attempting to articulate his bloc's position on the draft resolution in question.

It remains now to evaluate the procedure used in the course by considering the results in terms of the goals of teaching international organization. Ultimately, the question is one of the value of role-playing as a technique for confronting the student with what international organization is all about, while making him aware of why the subject is relevant both to an understanding of the realities of the international system and, as such, to the intellectual endeavors of undergraduates.

It is my belief that the role-playing exercises served a number of valuable purposes. At the end of each session the students were asked to evaluate what had preceded in terms of whether or not they, either as delegates or as experts, were really dealing with the problem at hand in any meaningful way. Certain questions were raised by everyone time and time again: What are the stumbling blocks to cooperation? Are they the result of man's inability to relate to his fellow man in a cooperative sense, or are they the result of structural and systemic impediments to cooperation? Is the failure in man, in society, or in both? What are the consequences of failure to cooperate? Are the risks worth the benefits? Could the individual experts come any closer to giving a solution for attaining world order than the national delegates? The significant point to note is that the students were forced into asking these types of questions as a result of participating in the role-playing sessions. In short, they were made aware of problem areas, possible solutions, and impediments to those solutions.

Thus, role-playing was as valuable in promoting conclusions reached as questions asked. In regard to their roles as national delegates, they were impressed by various paradoxical conclusions they reached. On the one hand, they were frustrated and somewhat depressed by the monotonous repetition of country position week after week, in much the same way as was Abbie Hoffman, who, in Revolution for the Hell of It, says: "My girl and I went up to the UN today to watch the debate. After a while it seemed so ridiculous and disgusting, my girl and I began to make love in the gallery. They threw us out, but I still think what we were doing was more valid than what those clowns were up to."

On the other hand, they came to a realization that most of the country positions were based on deeply-held perceptions of what was or was not in their own particular national interest (each of which was, of course, defined in terms of "peace"). These national interests were repeated week after week, no matter what the problem at hand was. The students thus came to the conclusion that nation-states would probably continue to see international organizations as threats to their sovereignty and would thus continue to fail to give them the power and authority needed to address themselves to the task of international integration. In effect, what they were saying was that international organizations tied to nation-states would be of only limited use in solving the world's pressing problems.

In regard to their roles as individual experts concerned with the attainment of world order, the students were again impressed by certain paradoxical conclusions. While being in somewhat greater agreement as to the type of world future they hoped for, they could not bring themselves to agree as to how that world future was to be reached. Some called for the liberation of man from the structural constraints of nation-states. Others called for the liberation of man from the psychological constraints of antiquated modes of thought. Some thought the sin was in the society, and others thought the sin was in the self.

It is interesting to note, however, that the students-as-delegates and the students-as-experts did agree on one point: that it is somewhat futile to discuss problem areas without first addressing one's attention to the sociological and psychological factors affecting human interaction. Thus they were not so much concerned with what international organizations can or cannot do to solve today's problems, but rather with why international organizations cannot function effectively and with the types of steps which would have to be taken to enable them to function effectively. As one student put it: "As a result of the role-playing, the six major problem areas remain vivid in my memory. I doubt whether I could have remembered the organizational procedures of the UN, the methods of voting, the duties of the Secretary-General, the functions of the Security Council, etc., if the course had been presented by the lecture/textbook method." In addition, students were forced, in the role-playing, to drop Western values and accept those of the developing nations. This had a tremendous impact on many students and resulted in broadening both perspectives regarding and understanding of the Third World.

What does the above tell us about how international organization should be taught? It does not tell us that we must totally forget about bringing to our students an understanding of the structures and functions of international organizations as presently constituted. Rather, it tells us three things: Firstly, it tells us that we must relate these structures and functions to the societal factors which condition them. Secondly, it tells us that we must stress our own roles as political scientists by refusing to divorce international organization from the broader discipline of which it is a part. As political scientists, we should be able to relate international organization outputs to the various social and political inputs which enter into the decision-making process. In addition, we should be able to dissect those processes in order to bring the students to an awareness of why certain types of decisions are reached rather than others. Role-playing has an advantage here over other teaching techniques in that it gives the students an opportunity to put themselves in the position of decision-makers and to subject themselves to the same types of contraints these decision-makers face. Finally, the above tells us that we must show how to go about altering societal factors if we are to hope to create international organizations which will be able, structurally and functionally, to deal with the world's problems in ways conducive to international integration and world order.

TEACHING ENGLISH GRAMMAR TO STUDENTS OF FOREIGN LANGUAGES

Erik F. Graubart

The Problem: The progressivly worsening performance and the attendant frustration and disenchantment of our students in elementary college-level language courses, can in great part be traced to the lack of proper preparation in the grammar and structure of the students' mother tongue.

The Solution: The simplest solution would be to "require" a better background in English grammar and structure of the English language before admitting students into first-year foreign language courses. However, this solution is not feasible.

Since no help is to be expected from the outside, foreign language teachers must apply instant self-help, i.e., they must teach enough conventional English grammar so their students will know what a verb is when their teacher speaks of, say, German irregular verbs. Are we justified in teaching English grammar when our course objective is a foreign language? The answer is yes, if we relate English grammatical, syntactical, or structural phenomena to corresponding features of the target language and thus, in effect, teach both languages.

To teach basic English grammar, linguistic terminology, syntax, word formation, and structural analysis while teaching freshman German is not really an innovation per se. It was done until about twenty years ago when the so-called reading-grammar approach of teaching foreign languages was still the main teaching method. At that time, however, students still came from high school knowing the rudiments of English. This is simply not the case today; today it is the exception, not the rule. Something called transformational grammar or, "new English" is upon us.

Where twenty years ago the foreign language teacher could launch right into his subject matter, today he must stop after each topic and verify whether his students have the vaguest notion what he is talking about. Where it was often sufficient to make a brief allusion to a similar syntactical or grammatical point in English in order to clarify or relate the point in question to something already familiar, namely the English language, this year I found myself teaching pure English grammar before I could even begin to tackle the issue in German.

This "radical" innovation was prompted partly, as stated above, by the poor background in English of college freshmen. However, it was also the fault of a new method of foreign language teaching which crept into the profession during the past fifteen years: the audio-lingual method of foreign language teaching. Born from insights of educational psychologists, behavioral psychologists, and some avant-garde foreign language teachers (who would rather have their students speak a few phrases in the foreign language after a year of study than have them be able to read, write, and understand the language tolerably) the audio-lingual method, supported by aspects of the "direct method" (which avoids the use of English from the first day on), produced textbooks and teachers which eschewed the teaching of grammar and of the written word and launched into a method of memorizing predigested dialogues and pattern sentences which had the students repeating, parrotlike, phrases which they could pronounce quite well but which they often did not understand or were unable to analyze structurally. Ideally, from such pattern drills, there was to emerge, by osmosis and induction, in the minds of the students the grammatical structure which they would need to apply to produce other sentences and phrases in the language. For many, perhaps over half of the students, this simply did not work out--especially the students from the natural sciences who are taking German, mostly as a requirement to acquire a basic reading knowledge of it yet they found they could not read very well after one or even after two years. They began to question why they should learn a language at all if after two years they could neither really speak nor read, neither write nor truly understand that language.

The problem was, that in twenty hours of foreign language courses (two years, five quarters, four semesters, or whichever the local basic foreign language sequence may be) amounting to less than 200 hours actual exposure to the foreign language, one just cannot do all aspects of a language efficiently enough to produce satisfactory results in all four skills. Especially, however, this cannot be done if two of the basic assumptions of the method are wrong: that there is no need to bring in English; and that the students already master the grammatical concepts of their mother tongue.

What I did was that I put aside the German textbook and began to teach traditional English grammar. I did this, referring to concepts of German, using very simple examples, to establish the ground work for teaching my primary topic--basic German. I plan to write a brief syllabus (entitled something like "English Grammar for and through Foreign Languages") to facilitate my teaching. I feel that I will not only be serving myself and my colleagues but also the cause of good English and with it the cause of better verbal expression by our students. As one of my students after receiving an "F" in a first-year German course said to me, "I may not have learned much German, but I sure learned a hell of a lot of English I did not know before!"

The results are reasonably clear: though this "innovation" of laying the groundwork slows up my course progress at first, I hope to make up the lost time by being able to move faster later. Students are beginning to say, "Now I understand what they mean in the book. Why did they not tell us that right away?" Indeed, why didn't they? Because they assumed that the students knew English grammar and that you don't really need grammar at all to teach a foreign language.

This is really a reactionary innovation (as befits a German teacher?!) in respect to methodology and current trends. At a time of "anything goes" and "usage makes everything o.k.", the throwback to formal grammar teaching seems antiquated--but it gets results within the boundaries of my course objectives and even beyond.

No problems arose so far; most students seemed grateful; only some were bored--those that knew their English grammar, usually because they had studied a few years of Latin or had come from a school where English is still taught as a structured language. The only constraints I have to fear is to be, for a time, considered "backwards" by my own progressive colleagues in the field of foreign language teaching. But the tide is slowly turning. The latest textbooks in our field show some beginnings of being converted. So I may, perhaps, be one of the pioneers of a new and yet not really so new method.

I have to experiment some more with specific topics and approaches; I have to collect opinions from students and colleagues who think likewise. This is, after all, only an experiment though it may turn into a whole "new" method of foreign language teaching.

A TECHNIQUE FOR ENCOURAGING STUDENTS TO LEARN TO READ A MATHEMATICS TEXT

Lou Graue

It seems to be traditional throughout the elementary and high school mathematics courses to use textbooks only as a source of problems. For an explanation of the theory and methods the student is trained to rely on the teacher assisted frequently by non-textbook audio-visual aids. This practice is sometimes continued at the college level for a few courses, but, sooner or later, a college student has to find out how to learn independently from a textbook. For most students the specific facts that he learns are probably not nearly so important to him as the development of his ability to learn independently from the textbook.

I have developed a process for encouraging the student to make use of his text as a significant aid to learning mathematics. This involves a special format for describing the assignments for each class period. Instead of giving assignments consisting only of a series of problems to be worked, the new assignment method contains other things. The section of the text to be covered is analyzed and summarized by listing the vocabulary, key ideas, and skills it contains. The special format for doing this in a compact and systematic way illustrated by the first page of an actual assignment sheet (below).

I do the assignment sheets for the class for the first week. During the second week the students make them up before they see the ones I have prepared and from then on they make their own summaries which are checked for accuracy by comparison with those of other students or by myself if they so desire.

No data has been collected to try to prove whether or not this procedure has any effect on learning. However, there is a significant change in the nature of the questions asked by the students treated this way. They ask more fundamental questions. Instead of questions like "how do you work problem 2?" they are more likely to ask about the theory or methods explained in the text which are basic to working problem 2 and all others similar to it.

*See Applebaum, Page 1 for a different solution to the same problem.

ASSIGNMENTS

Assignments are given in the following form.

Assignment number. Assignment name. Section and page references,

Vocabulary (Words you should know and be able to use.)

Key Ideas (The concepts important in this lesson and future work.)
a . . . . . b . . . . . c. . . . .

Skills (The skills you should try to increase as a result of work on this assignment.)
1 . . . . 2 . . . . . 3. . . . .

Problem set. page number: problem numbers.

1. The natural numbers and zero. Section 1-2, pages 4-10.

natural number, addition and multiplication closure, commutative, and associative properties, distributive property.

a. The closure, commutative, and associative properties hold in the case of some operations and sets of numbers and not in others.
b. The commutative property involves the order in which numbers are combined.
c. The associative property involves the way in which numbers are grouped.
d. The distributive property relates the two operations.

1. Checking an operation in a given set of numbers for closure.
2. Using the commutative, associative, and distributive properties in arithmetic operations.

7: 1,2,3; 10: 1,2,3

2. The natural numbers and zero (cont'd). Section 1-2, pages 10-20.

multiplicative identity element, additive identity element, concellation property of addition and multiplication, Substitution principle.

a. The natural number systems has n identity under multiplication but does not have an identity under addition. Zero is added to the natural number system to serve as the additive identity.
b. The use of the substitution principle in proofs.
c. Subtraction and division are defined as the inverses of addition and multiplication respectively.
d. It is impossible to define division by zero and preserve multiplication.
e. Not all equations of the forms $a + x = b$ and $ax = b$ have solutions in the natural number system. In case there is a solution there is only one.
f. $0 \cdot a = 0$ for every value of a.

INNOVATIONS IN THE SPEECH AND HEARING CLINIC

Bonita R. Greenberg, Ph.D. and Stephen B. Hood, Ph.D.

One of the problems which we face in the academic and clinical training of undergraduate students is related to the number of students who have elected to major in Speech and Hearing Therapy. (Currently, we have approximately 260 undergraduates, 22 Masters and 10 Ph.D. students in our program.) Optimum teaching requires small class sizes in order to have proper time for discussion of diagnostic and clinical skills and interpersonal relationships. Moreover, the number of students requires that we attempt to maintain a large caseload in order to provide clinical experience for our students. The more therapy we provide, however, the greater the demand for supervision of students in clinical practice. The resultant dilemma is tremendous and revolves around the lack of staff available.

Consequently, we have several innovations currently under way. In particular, we should like to stress the work which we have begun with our undergraduate course in diagnostic methods and procedures. A massive diagnostic screening procedure is currently in progress for 240 Head Start children in the Northwestern Ohio area. Twenty-six undergraduate students who are taking this course participate in the screening of these children. This screening procedure involves the assessment of language and articulation skills, hearing acuity, motor development, voice quality and vocabulary comprehension. All of this is done under the supervision of graduate students and faculty. This program provides optimum clinical experience for the undergraduate students and supervisory experience for the graduate students. The opportunity to achieve weekly diagnostic experience in conjunction with the course they are taking provides an important springboard for class discussions which would not otherwise be available.

We have recently set up video tape equipment for use in the clinical training of students. This will eliminate the problem of scheduling therapy and diagnostic evaluations and will provide additional input into classroom activity.

So far we are off to a fairly good start, but problems of adequate time and money remain. Were we to do it again, we'd ask for more people to supervise and more money for equipment.

A DEVICE USED TO PROJECT ENLARGED IMAGES OF OBJECTS

William N. Harris, William M. Harris

INNOVATION

Overhead projectors are used to project enlarged images of objects. By using this device on display in combination with an overhead projector, it is possible to increase considerably the magnified diameter of projected images.

PURPOSE

To provide a means for students to inspect visually macro-enlargements of small objects and specimens, and to observe physical details of living organisms and reacting systems.

PROCEDURES

A device was developed for the purposes described above. The device has not been used with classes to date, but a number of students and other interested persons have attended six demonstrations of the device in use.

EVALUATION

It appears that the device will be useful to students in biology, to elementary education students preparing to teach science, and to children in their study of elementary science.

NEXT STEPS

The construction of the device must be refined, and programs should be written to indicate the kinds of motivation and thinking which might be aided through use of the device.

SCIENCE IN THE ELEMENTARY SCHOOL AUTO-TUTORIAL PROGRAM
(EDUCATION 353)

Dr. W. Harris, Dr. V. Lee, and Dr. G. Daniels

INNOVATIVE PROCEDURES

Six areas of study included in this course were written and transcribed on two twenty-two channel tape machines. The following areas were included: molecular theory, sound, atmosphere, atomic theory, electricity, and machines. Kits of material were prepared for each area and undergraduate students could use the materials to perform experiments as they listened to the tapes. Students were assigned to work in pairs at each machine. Instead of depending upon a textbook and classroom demonstrations, students were given time to work in a problem-solving sequence in the auto-tutorial laboratory.

PURPOSE

As in most courses, there is insufficient class time for many students to develop understanding of concepts basic to various areas of study. The purpose of this project was to allow students more time to engage in individualized approach to concept formation in the above described areas, and thereby develop confidence in the teaching of science.

PROCEDURE

Students in two Education 353 classes were asked to register for two hours work per week in the auto-tutorial laboratory. Usual class time was two lecture hours and two hours of laboratory work. Specially prepared pre-tests and post-tests were administered to both of these classes, each taught by a different instructor, and also administered to two Education 353 classes labeled as controls. Each of the two instructors taught one of these control classes in the usual manner.

EVALUATION

Simple inspection of test results indicated that the test means of experimental classes were not significantly different on the pre-tests. The post-tests means of the experimental classes were somewhat higher than the means of the control groups, but not significantly different at the .05 level. However, a number of students (about one-half) in the experimental group did not have time to complete the sequence of tapes, and asked for additional time in the auto-tutorial laboratory.

PROBLEMS

The work in the auto-tutorial laboratory involved more time than the two hours per week allowed each student. The availability of staff to help students in the auto-tutorial laboratory decreased because of the need to maintain material supplies and to provide necessary encouragement to students.

NEXT STEPS

Because of a change in curricular design, most elementary education students are involved in the Methods' Experience Project. They are teaching in the schools for three days per week and are on campus for two days. Plans are underway to open the auto-tutorial laboratory to those students wishing to avail themselves of the science background which they might develop through the taped programs. Selection of particular areas could be made by the student. Because of the already overburdened credit-hour situation an elective evening course (with or without credit) could be offered as a service to students.

TWO "INNOVATIONS"

Charles F. Hartman

Forthwith two "innovations", the second one altogether out of my department - unclassifiable except to say that I've never seen anyone else teaching it quite this way, i.e., a survival swimming technique, which may be of some interest to fellow physical culture nuts.

INNOVATION #1

1. The principal innovation I have been trying this past year has been in the area of beginning language teaching. Having a relatively small section of students (Russian) whose schedules would allow one additional meeting time per week, the usual individually scheduled two one-half hour language lab sessions were replaced by a single one-hour session in which I met with my students in the auxiliary lab. (This meant, of course, an additional hour of class time per week--or more, if no single meeting time could be arranged).

2-3. But the advantages far outweighed this slight sacrifice. Instead of the two split sessions coming at odd times in the week so that one was never sure whether a given student had even heard the tapes for the material being discussed and drilled--"half-hour" sessions at that in name only, ten to fifteen minutes of which is usually devoted to finding the seat, finding the place in the text, adjusting this, that, and the other thing and producing, actually, seldom more than 15-20 minutes of unsupervised and therefore listless listening to impersonal tapes--instead of this, it was possible to go over the audial material personally with the students, answering questions on the spot, for a far more effective 45-50 minute period in a situation in which the students' attention could be maintained by the instructor and, for that matter, attendance itself was considerably improved.

4. The result was, on the morale side, a strong student response in favor of the new system. On the practical side, the students' oral/audial command of the language showed a decided upswing. Language lab absenteeism, as already noted, dropped off. On the whole, I think I can report a very successful operation.

5. The disadvantages are, of course, the extra time and schedule juggling required. But the non-necessity of consuming valuable class time with various exhortations to attend language lab "even if you don't like it" represents in itself a considerable saving of time. The advantages definitely outweigh the drawbacks.

6. What to do differently? I would start the new system on the first day instead of waiting until the second quarter when the language-lab-boredom syndrome is already dangerously advanced.

SURVIVAL SWIMMING TECHNIQUE

INNOVATION #2

Out of my department, college and, possibly, my mind, I have devoted some time for a number of years in teaching/demonstrating the survival swimming technique developed by the late Coach Frederick Lanoue of Georgia Tech.

My sessions at the pool are divided into two meetings per given swimming class. In the first, the demonstrator enters, stripped down to trunks--or, better, blue jeans--with hands tied behind him, thus gaining at least the casual interest of the class. The class itself is then divided into teams of three men each, one of whom gets his hands bound behind him, the other two acting as his guards while he is in the water. The demonstrator, now with the full attention of his class--a moment rare in American pedagogy--proceeds to tell them that they are indeed going into the water, tied, and explains what they must do to stay alive there: that is, the general theory of the floating technique, how it enables a swimmer to survive in the water almost indefinitely with minimal physical effort, being based on controlled breathing and well-timed head movements.

On a full lungful of air the average body will float at eyebrow level; interesting, but not too good for breathing. To make breathing possible without the exertion of swimming, treading water, or even any use of arms or legs, the head is dropped forward, chin to chest, bringing the water line down across the back of the neck and shoulders. To get a breath, as soon as the back of the neck breaks water, all the air is expelled and the head swung up out of the water in a single motion and--the instant the mouth clears the water--a new lungful sucked in before Archimedes' law takes over and the floater bobs back under water to the depth his head displacement requires. As the body stabilizes itself and begins to rise again with its full lungful of air, the head drops forward to the chest again, ready for the next breath-grabbing cycle.

The explanation finished, the demonstrator steps to the edge of the pool where the regular instructor chains his feet with a weight of chain corresponding to the demonstrator's personal margin of bouancy (mine being 3 lbs.)--to show the class that a real margin of safety exists--and, if willing, has a blindfold tied over his eyes--to dramatize the fact that the float works by feeling the water surface, not by looking for it, since the head must be kept down until the swimmer is in position to reach for a new breath.

Bound, weighted and blindfolded, the demonstrator jumps in and floats for some ten minutes alone as the class watches and the regular instructor re-emphasizes the instruction just given. Then, at a signal, the first group of bound students steps into the water, having been reminded, to help avert panic, that their legs are free and that they can kick back up to the surface whenever they need to. When the first group has had its chance to practice the float and each individual swimmer has discovered whether he is a floater or a sinker, the bound men are hauled out and a new man from each group bound and put in, and so on until all three men in each team have had their turn and the demonstrator himself is taken out and set free.

The second session is the "final" for this exercise and comes unexpectedly, to reduce absenteeism. The students have already been warned that, if they are not non-floaters altogether, if the system works for them, they will be expected to prove it in an arm-and-leg-bound test, which the second session is, the demonstrator not being in the pool but assisting the tying and untying and guarding of the students, divided, as before, into groups of three. At this session, either before or after the general test--which excludes the sinkers--the demonstrator shows these non-floaters the "travel stroke" version of the floating technique which, unlike the strict form, utilizes minimal arm and leg motion to overcome the swimmer's lack of buoyancy--the otherwise buoyant demonstrator wearing a scuba belt to give him that "sinking feeling".

The above has worked for some years with good results and general student acceptance. It involves a dare, which they love, and requires mainly that the demonstrator not chicken out too conspicuously.

*Dr. Hartman also had a brillant, but theoretical innovation concerning team-teaching so to speak of language.

LITTLE COLLEGE EXPERIMENT IN TEACHING

George Herman

Arts and Sciences, 100. The Making and Manipulation of Images, 8 credits.

1. Organization of the course: Four faculty members taught a class of 20-25 students, meeting for three two-hour sessions per week. All members of the class met one evening per week in a general session, at which guest lecturers, films, and recitals were made available.

2. Reading list: All students were asked to purchase a packet of paperbacks, consisting of the following:

Kenneth Boulding, The Image
Thomas Kuhn, The Structure of Scientific Revolution
Vance Packard, The Hidden Persuaders
Eric Hoffer, The True Believer
Joe McGinniss, The Selling of the President

Additional readings by individual students were related to student reports and projects.

3. Topical outline: Each section followed a slightly different course, depending upon the interests of the faculty member and students involved. The faculty met regularly outside class to maintain interdisciplinary contact, and coordinate all sections around the following broad outline:

a. Introduction: Explanatory statement, film, and multimedia presentation establishing the conceptual background of the course.

b. Confrontation: The image in contemporary society. The need for images. The social milieu from which images arise.

c. Articulation: The formulation of images; fitting them to the needs they will serve.

d. Testing: Individual meeting, testing and selection of images appropriate to personal orientation to the world. Social acceptance of "conventional" images.

e. Dissemination and Internalization of Images: The "selling" and "buying" of images by individuals and groups.

f. Implementation: Relevance of image-making and image-testing to personal, societal and academic problems.

Each section considered several different spheres of human endeavor or human interaction: natural science, historiography, poetry, advertising, music, art, verbal communication, etc. The faculty bridged the humanities and social sciences, and faculty-meetings were used to restrain individual members from excessive one-discipline orientation.

4. Assignments and student participation: Students read part or all of each of the books listed on the preceding page. Additional brief excerpts were distributed in class. Library assignments led to in-class and inter-class reports. Class discussion were a major obligation and evaluative tool, as were formal reports and papers. Conventional grades were assigned. It was assumed that a student who made a reasonable effort to meet the obligations of the course could meet the requirements of a C grade by concentrating on the orientation and background disciplines in which his strengths and interests lie.

5. Objectives of the course: The colleges agreed to accept this course as representing four hours of work (or one course) in social science and four hours (or one course) in the humanities. Students were selected from the center of the distribution of all students on high school record and ACT scores. The course was intended to:

a. Increase the availability of faculty consultation to students engaged in formulating academic goals.

b. Accelerate the student's learning of the relationships between the academic disciplines and problems of the student's world, and thereby accelerate the student's development of academic goals.

c. Teach the student to seek and utilize the potential of the university in the areas of his interest and goals.

d. Stimulate interest and confidence in academic methods of approaching problems, both intellectual and practical.

6. Staff: Sections of the course were taught by Richard Giardina, George Herman, David Roller and Gary Woditsch.

MULTI-MEDIA PRESENTATIONS*

Terry Jones

I. Subject matter: social systems analysis
Traditional mode: (1) a lecture on Talcott Parsons' theory of a social system
or
(2) a game, such as SIMSOC (simulated society)
Innovative mode: a multi-media presentation (slides and taped sound) of the different parts of a society operating simultaneously

II. This innovation was prompted by the visit of John Schmittroth, in a multi-media lecture arranged by the Little College. His lecture was well received, but I thought he did not exploit the full potential of his method. I thus had the purpose of using his general technique to better convey information on social systems analysis to students.

III. I did it. Education Auditorium. 3 slide projectors and the sound system. 40 minutes.

IV. The students liked it. The question is--what learning took place? Obviously, they didn't learn about Talcott Parsons' theory of a social system: this was never mentioned explicity.

From student comments, and observation of myself during the presentation, I would generalize that

- (a) each observer takes his or her own little 'trip', making sense of the pictures and sounds.
- (b) each observer probably (I am less sure of this) learns what I would want them to learn from a lecture on Parsons' theory of a social system, i.e., not the theory per se, but rather the realization that
  - (i) a social system includes many social processes operating simultaneously and interrelating; and
  - (ii) the interrelations within a complex system make long term social changes enormously difficult to accomplish.

V. It was a small problem getting the $90 (450 slides, 3 slide trays, 2 tapes), but Dean Eriksen provided $30 upon request (from a fund for teaching innovation materials) and the rest was diverted from student employment funds (students always get a raw deal).

VI. The path forward seems to include 2 things:

- (1) more presentations on different subject matters, to experience even more of the complexities of social systems;
- (2) some form of exercise where the student can work with models of social systems. I am trying two approaches:

(i) students read a book (dig it) about a systems model and talk with each other about it--evaluating, comprehending;
(ii) I am developing a computer model of a social system, where a student would sit at a console in the Math-Science building and try to play Nixon--allocating societal resources to achieve societal goals.

*As has already been noted, the conference commenced by Terry Jones's demonstrations.

MUSIC - JAZZ

Wendell Jones

I. Innovation

A. Content - History of Jazz (and its Literature)

B. Materials:

1) A great use of the Audio Center with pre-recorded tapes to demonstrate the changes that have taken place in jazz styles (and performers) from the first recorded (1917) jazz to the present time. I have extracted over 200 different recordings from the Audio Center's vast collection of jazz recordings and put them on 18 chronologically arranged tapes. This allows the student to devote his time to selected important performances without wasting his time searching through thousands of possibly unimportant recordings.

2) Required reading of current magazines and newspapers to extract pertinent data on jazz and jazz performers. Also, assigned T.V. viewing so as to better appreciate the important contribution of jazz styled writers and arrangers to our mass media.

II & III. The realization that we in music are not doing enough in the area of contemporary music prompted this innovation. Too often we have considered contemporary music as "dead" music written by living composers. I intended to point out the artistic worth of not only the music but the musical integrity of the jazz performers.

IV. I can't evaluate the outcome as yet. However, this is an important first step in the direction of more emphasis on current styles. The real significance of such a course rests in the potential it holds for diverting the attention of our students (and School) from their narrow concept of what constitutes Music (i.e., European art music). I think it can be said fairly that Schools of Music are notorious for their narrow view of music and are probably unique among departments in their unwillingness to recognize contemporary aspects of their discipline. In the process a most important American art form has been ignored.

V. Surprisingly I encountered few problems and constraints. Some sluggishness to implement the course. A lack of recorded materials and books in the School of Music proper.

VI. In future: I would like to divide the class at least into two sections so that people with some musical background might be in a section apart from those with less or no musical background.

I would like to bring to the class certain jazz figures who might be in the area (Detroit or Toledo) so that we could question them informally about aspects of their music. I would like to see an area of "Jazz Studies" developed in our School of Music so that courses dealing with all aspects of modern music and styles could be investigated. This would include courses dealing with improvisation, recording techniques, style characteristics of all contemporary music such as "rock", "gospel", "soul", etc. I see courses in this area as bridges between segments of our society. Black students especially, have seen their musical contributions ignored by traditional Schools of Music. Although I do not personally see these various styles as the property of just the Blacks, I do feel that they have been the ones most hurt by this lack of attention.

INNOVATIONS: ANTIDOTE TO FAULTY ASSUMPTIONS

Marvin L. Kumler

Grumbling about unsatisfactory courses, textbooks, professors, lectures, grades, and other aspects of collegiate academia is a traditional procedure used by students to maintain a semblance of sanity in the face of "The System." Having done the same themselves, educators tend to minimize the importance of these complaints. Further, the academic system which the freshman criticizes has some eight years or more (not counting the initial 12 or 13 years prior to university matriculation) in which to convert the fledgling thinker into another in an 800-year-old unbroken lineage of unstimulating upholders of the traditional classroom model.

But this model, like any other, is based upon assumptions. And we may infer some of these assumptions from the structure of the "average" traditional college classroom. It is, of course, not the intent of this paper to analyze thoroughly these assumptions: a few examples of the method should make clear how any one of us might begin somewhat more meaningfully to examine the assumptions underlying our teaching.

Some Examples of "Assumption Detection"

1) OBSERVATION: Students ordinarily sit, all facing in one direction, while the faculty member faces in the opposite direction.

   Inferences:
   - (a) Education is a "faculty vs. student" affair, a competitive activity with teacher and student on easily discriminated, opposing sides.
   - (b) Students need not have access, visually nor verbally, to other students, since students have nothing to contribute to their own learning.

2) OBSERVATION: Faculty members lecture, and students take notes.

   Inferences:
   - (a) The "in-the-ear-and-out-the-hand syndrome" is a good method of learning, since material in a notebook is functionally equivalent to both learning and thinking.
   - (b) Exposure to material is a sufficient condition for learning.
   - (c) The student need only be a passive receptacle into which the faculty member "pours" knowledge.

3) OBSERVATION: Examinations, ordinarily of the "multiple-guess" type, are liberally sprinkled through the course, and a FINAL is the ultimate goal of the academic term. Grades are based on test scores.

Inferences:
(a) Students do not want to learn, so the threat of examinations must be used to provide motivation for completing assignments.

(b) Grades are immutably accurate reflections of something both important and true about the student.

(c) Any learning which occurs under the pressure of an examination is useful and lasting.

(d) A score of 60 on an examination ordinarily reflects negligible learning.

(e) Learning is valuable and worthwhile only if it occurs prior to some arbitrarily-selected examination date.

(f) A student who acquires information early in the quarter is strangely better than a student who acquires identical information later.

4) OBSERVATION: Once a student obtains a poor grade (D or F), he can never again raise his grade average to a 4.0 level, even by getting A's in all other work.

Inferences:
(a) A low grade is more important and accurate than a high one, so it should never be wholly remediable.

(b) Low grades can be used to "punish" students into learning.

But enough of this exercise. Presumably, it will have become apparent that the author accepts none of these inferred assumptions as the basis for the best educational strategies we can devise. Instead, we can turn to that area in which contemporary psychology can speak with most authority, learning theory, for premises from which we may develop innovative alternatives to the traditional model classroom.

The piece of learning theory which the author has found most useful in this connection is very old, very simple, and stated in very many ways. Among modern spokesmen, E. L. Thorndike described it as "the law of Effect", and B. F. Skinner has termed it "operant conditioning." Stated rather simple-mindedly, this formulation holds that people would rather feel good than feel bad, so they will tend to do things that lead them to feel good and they'll tend to avoid things that lead them to feel bad. And the most basic recommendation of this paper is simply that every faculty member can usefully become innovative merely by: (1) analyzing his current procedures to see the assumptions which underlie them, (2) seeing where these assumptions are contrary to the learning theory just stated, and, (3) developing new procedures which will remedy the situation. It is this "innovative attitude" which is being pushed here, rather than the specific techniques which will be used as examples.

Example #1

Premises: Students don't necessarily dislike learning unless the procedures employed lead them to feel bad about the experience. And they tend to feel better about learning if they are active participants with some feeling of control over their fate.

Procedures: At the beginning of the Winter Quarter, 1970, students in Psychology 305 (Psychology of Personal Adjustment) were told that each of them would negotiate a contract with the instructor. Each student in the 61-student class was given two contract forms and asked to indicate on each the grade he wished to work toward, the specific things he proposed to do to earn that grade, and his proposal for how his work was to be evaluated by the instructor. When the student felt he had a reasonable contract, he was to sign both copies and give them to the instructor who would then read and evaluate them. If the contract was reasonable and acceptable as a basis for the grade in question, the instructor signed both copies, returned one to the student, and retained one copy for his own records. If the student's proposal was not acceptable, the instructor would prepare a new contract, sign two copies, and give them to the student. This procedure of offer and counter-offer continued until the two parties agreed on the contract. It was understood throughout that work must be of a calibre commensurate with the contracted grade; if not, it did not satisfy the contract, and the student must repair it to bring it up to contract level or the instructor would be freed of the contract and then had the right to assign the grade he believed the student deserved.

Results: 59 of the 61 students in the class indicated that they strongly preferred the contract system to a traditional format. Three of the students in this class devised and executed very interesting independent experimental research projects, a most uncommon thing in Psychology 305. Forty of the 61 students met or exceeded their contracts, while 21 failed to do so. The final grade distribution for the course yielded 35 A's, 17 B's, 7 C's, 1 F, and 1 WP. The instructor felt that the procedure worked well, the grades were justified, and that he would repeat the procedure another time. He also felt, however, that the amount of time and effort involved in this version of this course was unrealistic with a group larger than about 30 students.

Example #2

Premises: One feature of many classes which hinders learning is the lengthy anxious delay between student performance (handing in a paper, taking an exam, etc.) and the feedback (payoff, reinforcement, knowledge of results) which lets him know the results. Student learning would presumably be enhanced if immediate feedback could be provided.

Procedures: In Psychology 305 (Adjustment) during Winter Quarter, 1971, and in Psychology 405 (Abnormal) during the Spring Quarter, 1971, special immediate-feedback answer sheets were used. These answer sheets, available commercially from a New York firm, are completed by the student by erasing small black dots (answer options). Erasing the black dot exposes a keyed letter (e.g., "T") which indicates to the student whether he has selected the correct answer option or not. If so, he goes on to the next item, but if he has selected a wrong answer, he rethinks the item and makes a second attempt. Scoring then provides most credit (e.g., 4 points) for an item (e.g., 5-option) on which the correct response was achieved on the first try, a lesser number of points (e.g., 3 points) if two tries were required, etc. Hence, the usual assumption that learning is all-or-none is avoided, and varying degrees of familiarity with the material can be recognized.

Results: Evaluation of these procedures is still under way. Student response is overwhelmingly positive, however, except for 1% to 2% of the class who feel that immediate feedback unduly raises anxiety when one makes an error. This "innovation" seems particularly suited to those classes which are almost necessarily taught in very large lecture sections.

Example #3

Premises: Students can learn and, if faculty members will only clear the way, they will do so. Students can enjoy the world of ideas, and learning can become a pleasurable activity reinforced by prompt feedback and self-pacing.

Procedures: In 1968, Appleton-Century-Crofts published a textbook by C. B. Ferster and M. C. Perrott. Entitled Behavior Principles, the text proved a fascinating stimulus for learning because the authors had divided the material into many small units, and students were to demonstrate mastery of the units successively.

The principles invoked by Ferster and Perrott should have broader applicability, however, so the present author, in the Fall Quarter of 1969 (and again in the Spring Quarter of 1970) attempted to structure an undergraduate Psychology 405 (Abnormal) class along the same lines.

There were no quizzes, tests, midterms, required papers, or final examination in the course. Instead, students were merely to read and master textbook material. Mastery was demonstrated via a brief (circa 10-minute) interview with the instructor, graduate assistant, or another student who had already successfully mastered the material under consideration. Rather than some other units, students were to treat text chapters as units, mastering one chapter before proceeding to the next. All students were given "study guides" to help them prepare for the interviews, and each student was given an interviewer's guide explaining how to conduct interviews over material. Grades were dependent upon amount of material mastered: 0 to 11 chapters gave an "F"; to attain a "D", the student needed 12 chapters; 20 chapters gave a "C"; 25 chapters for a "B"; and 29 chapters plus a terminal "summary interview" for an "A".

Fridays were specified as "Honors Sessions" for the class, and only those students who had completed chapters commensurate with a "C" rate of work were allowed to attend these sessions. Content of the honors sessions consisted of films, tape recordings, and guest speakers dealing with case histories and various treatment approaches.

Results: Student response to this sort of course structure has been uniformly and strongly positive. Learning seems to proceed rapidly and well, and students develop a remarkable esprit de corps as they work together to master material. Initially, many safeguards against various forms of "cheating" or laxity were built into the course rules, but it soon became apparent that these rules could be relaxed or discarded because students wanted to learn. They were extremely demanding of one another in interviews and weren't afraid to tell a fellow student that his level of mastery wasn't acceptable; this probably resulted from their awareness that "failing" an interview merely meant reviewing that chapter and taking yet another interview on it. Of 34 students in the Fall, 1969, class, 17 earned A;s, 10 earned B's. 5 earned C's, 2 earned D's, and one student who simply "gave up" in the fourth week of the quarter retained an "F".

A comparison class, taught in a "conventional" manner using the same textbook and study guides was conducted by a friend of the present author at Western Washington State College (WWSC). At the end of the quarter, both classes took the WWSC objective final examination (it was purely an experimental measure at BGSU but was a grade-determiner at WWSC), and both classes took an experimental essay examination specifically geared to allow students to demonstrate their ability to integrate the factual material they had learned.

On the objective final examination, the two classes did not differ significantly. On the essay examination, graded by both instructors independently with scores summed for each student and with papers identified only by social security number to minimize grader bias, the BGSU class surpassed the WWSC class at the .001 level of statistical significant by median test.

Conclusion

The point of this paper has been that students need to be treated differently than they traditionally have been in a college classroom. And the change can be accomplished by any faculty member who will take the time and effort to examine the assumptions implicit in the way he structures his courses, decide whether these assumptions are consonant with our current knowledge about how human learning proceeds, and alter his procedures if they are not. And, since faculty members also respond to reinforcements, innovative teaching will prove to be extremely gratifying. Why? Because students are very accomplished at giving an instructor the appropriate kinds of reinforcement for treating them as human beings.

PHILOSOPHY 202, ETHICS

Richard H. Lineback

In reference to Philosophy 202, Ethics, several minor innovations were incorporated last quarter that taken together made the course significantly better in the opinion of the students than it has been in the past. A brief description of these innovations follows.

1) A practice paper followed by a required conference with the instructor.

   The student's grade in Philosophy 202 has been based upon five or six short philosophical essays and his participation in class discussions. Since writing philosophy is somewhat different than writing ordinary English prose, the students suggested that a practice paper written to the best of their ability and graded by the instructor's usual standards, followed by a required conference in the instructor's office, would significantly improve their ability to write philosophical essays. We did just this. The outcome was most favorable. Most of the students made their major mistakes on the practice paper and as a result the remainder of their essays were of significantly higher quality than they would have been otherwise. Moreover, the students were not penalized for not knowing how to write a philosophical essay at the beginning of their first course in philosophy. On the basis of my experience last quarter, I plan to use a practice paper in the future.

2) Oral philosophical discussions in lieu of philosophical essays.

   Several of the students requested the privilege of carrying on a private philosophical discussion with their instructor, rather than writing one of the required philosophical essays. This privilege was limited to the last one-third of the course because prior to that time they would not be ready to carry on a meaningful philosophical dialogue, since this was their first course in philosophy. Out of a class of 25, some 6 students elected this option. Each exam lasted from 30-45 minutes. From the student's point of view, the oral discussion has the advantage of allowing him to spend maximum time in preparation and a minimum of time typing up the results. The major disadvantage from the instructor's point of view is that there is no record of the content of the discussion. Hence, should the student wish to dispute his grade on the oral discussion, there is no way that another instructor could evaluate the piece of work.

3) A class formulated course outline.

On the first day of class, the students were asked to write down those topics in the area of ethics which they wished to pursue that quarter. These written requests were made before any discussion of the nature of ethics or of the subject matter thereof. The results were formulated and all the possibilities mentioned were listed on a ballot, which was then distributed at the second meeting. On the basis of the ballot, some eight general topics were selected. At this point in procedure, I suggested to the students which readings might be most relevant to the topics they had chosen. The results of this process were twofold: a) the students seemed to appreciate the opportunity to express their interest in particular topics and b) the courses had more relevance to contemporary social problems than they otherwise would have had. In reference to the latter, the students chose such topics as the ethics of drugs and the ethics of war. The chief disadvantage was not knowing which topics would be chosen in advance and hence the inability to order the appropriate reading materials in advance. As a result greater use had to be made of dittoed material and of books placed on reserve.

4) A booklet of essays.

Rather than merely writing another philosophical essay to be turned in and graded by the instructor, I suggested to the class that they might like to choose different, but related, topics and to have the resulting essays duplicated and distributed in booklet form to each of the students in the class. This we did with the general topic "Ethics as Portrayed in the Mass Media." Each student took a particular film, book, television series, or play and addressed himself to the ethical implications of the work. These essays were then duplicated and distributed to each member of the class in the form of a booklet. The advantages of the booklet were twofold: a) it made the essay seem more important, and, b) the students benefited in a variety of ways from reading each other's essays. The main disadvantage was the cost of duplication and assembling the booklets.

5) Dictation of comments concerning students' essays.

In grading the philosophical essays written by the students, I found that I was constantly pulled between getting the job done in a reasonable amount of time and making extensive comments on their papers. One solution that I have used over the last two quarters is to simply read the essays with the microphone of the department's dictation equipment in my right hand. As criticisms and comments occur to me as I read the paper, I merely speak them into the microphone. In this way the students get a paragraph of comments which is more detailed than they would get if I had to write all of the comments and also the comments are in more readable form. The chief disadvantage of this system is that it requires dictation equipment and a good bit of the department secretary's time to transcribe all of the comments on all of the papers. However, the students' reaction was very positive and it seemed as if the procedure was worth the investment.

INNOVATIONS IN TEACHING PHILOSOPHY

Loy Littlefield

I have conducted two experiments, am now conducting a third, and planning a fourth.* Let me briefly title them, and then I will refer to each by number as I go more into detail.

Experiment 1 - a course in the Philosophy of the University, taught in Philosophy 101. (taught four sections over two Quarters).

Experiment 2 - a course in the Philosophy of Civil Disobedience, taught in Philosophy 101. (taught five sections over two Quarters).

Experiment 3 - a course in the Introduction to Metaphysics, taught in Philosophy 101. (being taught now in one section, and to be repeated next year)

Experiments 1 and 2 were directed towards the students' plea for relevance. They were intended to permit concentration upon topics which the students could not study in the regular curriculum, and also which, so I thought, would tap live interests. I was somewhat disappointed in the results. It did not appear to me that the majority of the students, although they might have had an initial enthusiasm, wanted to delve thoroughly into these topics, at least not in a systematic and thorough way. The procedure used in the course was to read and discuss a few paperback books. In Experiment 1, we read Ortega Y Gasset's Mission of the University, Robert Hutchins' University of Utopia, Jaques Barzun's The American University, and dealt occasionally with materials in other texts such as Karl Jaspers' The Idea of the University. In Experiment 2, we read Thoreau's Essay on the Duty of Civil Disobedience, Plato's Apology and Crito, and dealt with other writings such as John Rawls' Justification of Civil Disobedience. Class time was spent discussing these texts, and I did not prepare formal lectures. I did not check attendance, and oftentimes attendance was not good, especially the second Quarter of the Civil Disobedience course. Grades were determined the normal way, and written assignments were, with one or two exceptions when I gave tests, limited to short papers where the students had almost complete freedom to choose their own topic.

Experiment 3 is now being conducted. I am attempting to introduce the students to philosophical thinking by focusing entirely upon metaphysics as a particular form of philosophical inquiry. We are attempting to determine what metaphysics is, whether it is a significant undertaking or not, and how metaphysics is to be done today. Here too, we are reading a text, Bruce Wilshire's Metaphysics.

As yet, I have not introduced any experimental teaching procedures. We have simply been reading the early parts of the text, and discussing what metaphysics is all about. (Incidentally, the enrollment in Experiments 1, 2 and 3 ranged for the most part between 25 and 35).

Footnote: Experiment 4 - an experimental studies course for next year which as yet is very undefined. It is an attempt to develop new approaches to the undergraduate study of philosophy. The course is to be planned by a small number of undergraduate students who want to have regularly scheduled workshops on a particular topic. They hope to invite speakers.

THE GOOD DAYS

Michael Moore

In a recent Saturday Review article two professors observed that "There is only one thing a teacher can impart to his students--a method or style of apprehending the world." In the History 102A course in which I participated at Hamline University, Minnesota, in the fall of 1968, we had tried to implement something of what those authors were asserting, in the belief that it was more important to get students to think historically rather than to memorize data for its own sake. With history and historical interpretations coming out by the yard and at an increasing tempo, we were convinced that it was essential for students to have an approach, to be able to ask penetrating questions about a problem and to analyze and interpret material.

Although historians have been doing such analysis and interpretation for decades, it was a different matter when it came to teaching it to students who have never had a college history course before. Actually their lack of history courses probably was an advantage because they had had no opportunity to acquire bad habits such as rote memorization/mindless regurgitation or to have to "worship" the text--that marvelous concoction that combines the traits of Holy Writ and the St. Paul/Minneapolis telephone directory. Although it was hard, we wanted to get the students excited about history, and, through the examination of all kinds of materials, to confront some of the deeper and lasting questions of man and his existence.

Since there are descriptions of the mechanics and materials of the course available--and since, I'm sure, the course will have changed since the fall, 1968 quarter, I will restrict my discussion to two questions: (1) What kinds of things seemed to work (and not work) in such a course, and (2) What constituted reasonable accomplishment?

It should be emphasized that we were not trying to make professional historians out of our students (there are enough of those already!). Rather, we attempted to create one situation--the Stock Market Crash of 1929 and some of its after effects--that would make the students think historically. This, then, got us into the materials of the historian: newspapers, magazine articles, advertisements, memoirs, letters, oral interviews, where we not only read them for what they said but tried to read "between the lines." How, for example, can one detect the values, motives, and biases of a writer from the writing itself? What other kinds of evidence do we need in judging the significance of a statement? How can we judge among conflicting interpretations of the same pieces of evidence? How can we formulate a defensible thesis?

Such questions seemed to be best dealt with in two situations: individual and group analysis of a document for which there was sufficient preparation, and research projects where the students, collectively and individually, had time to rummage around in materials related to a clearly defined problem that concerned them. The class analysis situation was best illustrated when we discussed an article by Robert Hutchins who reminisced about the 1930's and compared the "illusions" of that decade to those of the 1960's. We started with the simple question of "What did the article say?" and moved into tougher ones like what were Hutchins' values and how did they apparently influence his conclusions. From there we began to move into the larger question of the role of the intellectual in the 1930's.

Another example: While preparing the group reports on the responses to the depression in the U. S., England and Germany, a student brought in a political cartoon that he thought was interesting and somehow relevant. That cartoon took the whole hour to analyze and involved nearly everyone in the class because they could bring to bear their own work on it.

The "bad" days were also instructive, although it's natural to try to forget them. I soon learned not to present a document "cold" because the response was likely to be as frigid. Another day I gave the class a summary of conflicting historical interpretations about the causes of the Crash and found that they were simply not yet ready for that. Just as I was convinced that a "straight lecture" course was not feasible, I became cognizant of the need to supplement class work at timely intervals with lectures. This was evidenced by the success of formal presentations on the background of Italo-Ethiopian relations on the eve of Mussolini's invasion in 1935. It provided a necessary context for their subsequent investigation.

One--and not the only--tentative conclusion about the good days would be this: It is highly desirable to contrive a situation that not only engages the mind of the individual student but which also provides a context to which he can relate his interests and problems, and see how they develop. Thus a question--e.g., What was the Depression like--that becomes a common enterprise of the whole class and is broad enough to allow each person to make his own contribution, is effective because it (1) can be shown to have relevance; (2) provides enough sub-questions of interest to nearly everyone; (3) makes the student individually responsible for his part of an answer; (4) allows for a variety of criticism, not only from the instructor but from one's peers; and (5) gives a sense of the complexity, challenge and excitement of what history is all about.

What could be considered a reasonable criterion of accomplishment? Perhaps the real proof of the pudding will be the students' performance in subsequent courses and when they have had the chance to view their experience in the context of their total education at Hamline--and beyond. But perhaps one indication--albeit modest--was expressed by one sophomore who said: "I'll never read a newspaper the same way again."

ENGLISH 203

Beatrice K. Morton

I find it difficult to write a precis--even a short one--that fits the outline primarily because my approach to teaching is what, for some people at least, is the thing that is radically innovative. I've used video tapes. These are humorous skits students have done to illustrate specific points. In the English 203 (Introduction to Drama) I am experimenting this quarter with small group presentation of the introductions to the plays we study.

Entire class: Read Tartuffe, School for Scandal, Oedipus, St. Joan, Romeo and Juliet, West Side Story, The Caretaker and The Dumb Waiter, The American Dream and Zoo Story. Due dates will be announced and brief quizzes will follow the reading of each play, prior to class discussion.

Groups: You will participate in two small group activities.

1. Introduce one of the plays that the entire class will read. This will be given on the due date immediately following the quiz. It may be anything you wish provided that it serves as a lead-in to class discussion of the play. You might do a scene, present background material in an interesting and original way, do a parody, shift time and/or place, evoke the mood of the play through music, dance, drama, or present the theme in some other context. Or do something not suggested here.

2. Prepare one of the following plays for presentation during the last week of the quarter. There will have to be a 25 minute time limit, so prepare accordingly. Choose a significant scene, cut it if necessary, prepare a summary of the play that will place the selected scene in context, rehearse (with or without memorization of the lines), and prepare a final statement on the theme of the play. If your group so decides, you may do an original play.

Albee--Who's Afraid of Virginia Woolf?
Beckett--Waiting for Godot
Duerenmatt--The Physicist or The Visit
Kopit--Indians
Shaw--Arms and the Man or Man and Superman (Act III--the Don Juan in Hell section)
Weiss--Marat/Sade

TEACHING INNOVATIONS SCIENCE, TECHNOLOGY, AND GOVERNMENT L.A.-300

David S. Newman

I. Peggy Hurst and I introduced the course, "Science Technology and Government in order to satisfy a need felt by both science and non-science students, for a science-related course that was "Relevant". In addition we had been toying with the idea of teaching a course on the history of science or the history of chemistry. The notion of "relevance" and the history of science seemed to be admirably well suited to each other because the relevance and importance of science can best be seen in an historical context.

The course traced the role of Science in Government decisions (and vice versa) beginning with the industrial revolution, moving on to Germany in World War I and, England and Radar in World War II. We then discussed, at some length, the Manhattan Project and peace-time uses of nuclear power.

The class of thirteen students met once a week for about three hours. Grover Platt, Don Rowney, Bill Reichert, and Vicky Evans appeared at different times throughout the quarter as guest lecturers. Grover Platt spoke about the industrial revolution and about Germany in World War I (The Haber Process). Don Rowney spoke about the Russian Academy of Science and the Lyszenko affair. William Reichert spoke about McCarthy and Oppenheimer and Vicky Evans spoke about some of the problems of preventing nuclear power plants from being built.

A grade for the course was based upon class participation as well as a term paper covering some small portion of the interaction between science and government. One book, The Peril of the Peaceful Atom was assigned for everyone to read but for the most part the student could select any reading material he wished from a list we provided. Parenthetically, when discussing ways of improving the course the students wanted less freedom of choice and more assigned reading. There were many lively discussions, particularly on such things as whether or not we should have built the A bomb, whether or not we should have dropped it on Japan, and what we should do now about nuclear power.

We do not know if we succeeded or failed because there were too many variables. Nevertheless, many people have expressed interest in taking the course when it is next given. The quality of the term papers ranged from "nearly terrible" to "excellent" and the quality of the discussions covered about the same range.

When we give the course again we will try to have a few more students. We felt a "critical mass" had not been reached. We will also assign a few more readings, particularly in connection with the historical aspects of the relationship between science and government.

The course will also improve "naturally" because both Peggy and I learned a great deal about the subject and because there are many new sources of information that have just become available.

II. Thermodynamics (Chemistry 511)

The format of Chemistry 511 is quite conventional; about 90% lecture, 10% discussion, but the subject is unconventional. Information theory, as invented by Claude Shannon, and a formalism introduced by J. S. Gibbs and Ed Jaynes were used as the basis for deriving all of the thermodynamic functions. This approach has been used by some physicists in the recent past but, to my knowledge, has never been used by chemists.

The thermodynamic functions are derived rigorously and the Laws are seen to arise naturally out of the formalism. In most thermodynamics courses, machines and other "constructs" are used to generate the thermodynamic-functions. This new approach gives far greater insight into the nature of macroscopic processes than does conventional thermodynamics.

III. Chemistry 100

For the last four years I have been developing an "introductory" course for nonscience majors that caters to the needs of these people and is not simply a "watered down" chem majors' course. To this end, many details germain to a major, are omitted and many of the major "ideas" of chemists are stressed. I try to impart, to the student, some idea of what it is like to be a chemist, what a chemist does that is important and how a scientist "thinks". It is hoped that this kind of exposure will help them approach other problems in their everyday life somewhat differently.

(I have begun a textbook for this sort of course and have submitted the first chapter and perspectus to two publishers for review.)

TEACHER ROLE MODIFICATION
PHILOSOPHY OF EDUCATION

Trevor J. Phillips

The Problem: What happens in a class (in this case, Philosophy of Education) when the instructor refuses to be responsible for the learning of the students? Put another way, what kinds of things occur when teaching is subordinated to learning? What does a senior in the College of Education think and feel when he opens himself to reveal his thoughts and feelings? What would he choose to learn were the responsibility for learning entirely his? (By definition, it always is, anyway.)

Procedure: From the outset, an attempt was made to encourage the class to plan its own curriculum, to decide its day-to-day topics for discussion. I indicated unequivocally that I would not assume the role of "teacher," nor would I play judge and jury. Grades were assigned the first day on the basis of the student's present accumulative point average. Those finding the arrangement unacceptable were encouraged to transfer to another section. (Two did) In actual practice, knowledge of my procedures is now fairly widespread, and few students were stunned.

With competition removed, and the need for psyching-out eliminated, a certain lethargy descended on the larger part of the class while a noticeable euphoria permeated the smaller.

Attendance dropped off sharply after about a month, so that in both of my sections about 50-60% of the class regularly appeared. For the most part, the same students attended daily.

Evaluation: The period of adjustment was painful for some of the time for all, and for most of the time for some. All members of the class occasionally voiced their concern over "what the hell were we doing?" The most vital moments in class were those wherein the participants momentarily transcended their student role, becoming concerned persons involved in what they had identified as an important topic of discussion.

What learning occurred? I think much personal, intrinsic learning; learning that was concerned with self, personal values and worth. Although I would have preferred that the students had engaged in more "profound" matters (my traditional upbringing showing?), I think that however little lasting value the experience may have had, its actual effect upon the student will be greater than the more conventional "teaching" approach, although the latter infuses the student with more "confidence" and renders the classroom situation - the fear of grades notwithstanding - less threatening.

During the present quarter I am insisting on 75% attendance - i.e., every day but Fridays, when only those wishing to become deeply involved in a particular area are encouraged to turn up. I want to experiment further with "freedom-within-a-boundary" by making it virtually impossible to cop-out but imperative to make decisions about what one will do and how . . .

POST-SCRIPT: A student friend of mine has just departed my office. "What turns me off," she asserts, "is that in the vast majority of my classes there is a 'standard interpretation' that each class member must eventually adopt. Other interpretations are grudgingly acknowledged to exist . . . but not here, 'not in this class.'"

Any attempt that seeks to eradicate the view of "education" illustrated by this anecdote is, it seems to me, worthwhile.

AN UNSTRUCTURED PHYSICS SURVEY COURSE

R. L. Ptak and R. E. Stoner

For three of the past four quarters we have been conducting an experimental section of Physics 100, a terminal survey course. The experiment consists of exposing the students to a series of uncorrelated lectures by 15 to 20 different speakers during the quarter. Each lecturer is asked to present some topic related to physics that he thinks is interesting and that he can present on an elementary level within a single fifty-minute class period. There is no textbook, although mimeographed notes are sometimes distributed, and any attempt to correlate the different topics presented is made by the lecturers themselves. In addition to the physics staff, faculty from related departments and graduate students have been lecturers. Testing and the assignment of grades is done in the conventional way.

Most courses in physics at this level, as reflected in the available textbooks, spend a great deal of time on "equation-oriented", nineteenth-century physics as if every student were being trained to be a professional scientist or engineer. We felt that students could not only learn much more physics but also better appreciate modern physical science if they were exposed to several professional scientists, each doing "his own thing". We also wanted to test whether seeing a new face, a different teaching style and a different topic every class period would increase the interest and response of the students.

In general, it has been easy to recruit lecturers for the course. Almost without exception, lecturers spend more time preparing for an invited lecture in this experimental course than in preparing for a class in a course of their own, and they seem to enjoy the task. The lecturers with the best class response seem to be those who talk about work they themselves do or who talk about some specific topic which especially interests them. The students, in turn, soon become critics who appreciate a well prepared lecture and merely tolerate a poor one.

We get a lot of qualitative verbal feedback from the students about the various lectures, and teaching methods. In addition, we have some quantitative response from course evaluation questions on the final exams. While a large majority of the students have had an overall positive reaction to the course, there are some negative reactions. Those who do not like it feel uncomfortable about the lack of structure--they would like to have the security of a textbook and more time to "psych out the prof". Surprisingly, the reactions of individual students to the course have no noticeable correlation with their grades.

Students seem to like demonstration experiments and animated teaching styles. They also like to have physics presented as something real people enjoy doing. They do not like pure exposition, especially when it occurs on film, no matter how interesting the material may seem to us.

It is rather difficult to judge whether the students gain more knowledge of physics in this format or in the traditional highly structured course. But from the results of the exams we conclude that they do at least as well in this experimental section, and the ideas they have learned pertain to the physics that is being done today. We feel that these people are therefore better prepared to understand what scientific research can and cannot accomplish and how it is related to technology.

ORGANIZATION THEORY AND BEHAVIOR

Dr. Karl G. Rahdert

For a number of quarters, an attempt has been made to incorporate learning by "experience" in the classroom as a supplement to the "cognitive" learning in a classroom. The class subject is Organization Theory and Behavior. Traditionally, the approach used would be one of studying the textbook, reading of research reports, class lectures, and discussions.

This different approach was developed in order to attempt to satisfy a need to "feel" organization dynamics as an emotional experience as well as to understand it.

An unstructured approach to the development of a group working toward the achievement of an objective was the primary technique used. The objective was, "To learn more about how a group of people working together accomplishes its goal." The traditional structuring process was not used.

The reaction of students to this learning situation was favorable. They seemed to become aware of another way of learning, "One they have used through their lifetime but which has been replaced in emphasis by the traditional school-type educational procedures." Each student maintained a log of this experience of understanding. These logs reveal the development of insight and the growth of students in the group functioning process.

The time available to do this has unfortunately been limited because of a felt need to cover a body of printed knowledge in the subject area.

Early in the process, students feel extremely frustrated and adequate time needs to be provided to go beyond this stage of frustration.

The approach used could perhaps become an entire course instead of just part of a course. With additional experience, I have become less concerned about what seems to be, repetitive confusion on the part of the students: recognizing that it's all part of the learning process. It would be more comfortable and perhaps more effective if the time constraint could be overcome.

HISTORY OF THE ENGLISH LANGUAGE - "BLACK ENGLISH"

Kenneth A. Robb

For a four hour class, History of the English Language, I scheduled three meetings of the class as a whole each week. and students chose one of two sections (A and B) to meet one hour each week. Since the text used for the course presented primarily the findings of research into the historical stages of English, I proposed to pursue in the two sections some of the methods of arriving at those findings.

Section A was devoted primarily to written materials which a linguist might examine in determining what the nature of English was at various stages of its history. This section was pursuing a rather conventional process, one which might have been pursued in a fourth regular meeting of the class as a whole.

Section B pursued a more innovative line. A hypothesis regarding the history of Black English (BE--sometimes referred to as Nonstandard Negro English) has been advanced by William A. Stewart, in outline form and without sufficient evidence. The aim was to examine some historical documents in which representations of the dialect are recorded and to attempt to test Stewart's hypothesis. It was hoped that the students would apply the methodology of historical linguistics to material that has not yet been adequately studied and would also learn about the historical development and present nature of BE.

Meeting one hour a week did not allow sufficient time to train the students with respect to what they should look for in the documents representing BE. I found that they were too lacking in confidence to bring forth what they noticed in the texts without an undue amount of prodding from me. In the end, most students seemed convinced that they had gained some important knowledge of the historical basis of BE and some of its present characteristics, but I doubt that they also gained the kind of experience in doing research in historical linguistics which I had aimed for. Probably the aims I set for these one hour per week sessions could be met adequately only in a regular four hour course.

EXPERIMENTAL ORTHODOXY WITH HISTORY #205:
U. S. HISTORY FROM 1776-1865

David C. Roller

ASSUMPTIONS:

1. That in the immediate future, the bulk of freshman and sophomore instruction will be carried on in large (100 students or more) lecture sections, possibly supplemented with discussion groups led by graduate assistants.

2. That such lectures, however well prepared and delivered, fail to engage fully the minds of students; and, however good a review of the facts such courses are, they fail to develop directly those intellectual skills which we expect of majors.

3. That most beginning graduate students are only marginally prepared a) to serve as authorities on problems of a factual nature and b) to serve as the source of questions which will involve students in the problems of historical interpretation.

4. That, as Carl Becker (historian) once observed, "no one can profit by historical research , or not much, unless he does some for himself."

OBJECTIVES:

1. To more directly train students in the critical reading skills of analysis, inquiry and synthesis in a structured and systematic use of a body of historical documents.

2. To engage students (and the graduate assistants) in a problem-solving process posed in a way where the amount of relative ignorance and/or sophistication will be of negligible help.

3. To make the discussion groups and papers written by the students the heart of the course, and to make the lectures the occasion for amplifying what has already happened in the discussion.

COURSE:

The course's format was quite traditional: 3 hours of lecture a week and 1 hour of small group discussion led by a graduate assistant. A collection of documents (Potter and Manning's Nationalism and Sectionalism) was used instead of a survey text; students were required to write a paper each week; 4 paperback histories were used as outside readings; and an open book final exam.

1st Week: The course began with small group discussion based upon the examination of 5 documents which described the execution of Nathan Hale (in an alternative of this experiment, I have used 4 accounts of the Battles of Lexington & Concord). Graduate assistants need not become experts on the Revolutionary War; only critical thinkers urging students to deal with a series of questions, all of which come down to: "How does the particular bias and perspective of a writer influence his account?"

Lectures then offer two specific examples of interpreting the American Revolution, each based upon a different historical perspective. The real subject of these lectures is "Bias and Perspectives in History," and not "The American Revolution."

2nd Week: Among the documents read, is a series of analyses of post-revolutionary America written by contemporaries of the era. Students are to identify the different perspectives of the authors, and then to briefly and clearly summarize the thesis of each.

The second week's lectures are prepared as examples of thesis (or argumentative) history, with the third hour of lecture being devoted to an analysis of the previous five lectures: their theses, their perspectives, their biases, and some of the implications of each of the positions.

3rd Week: Having devoted two weeks to conflicting testimony regarding the "Facts" of historical experience and to contradictory explanations of these "facts," the third week turns to the question of how historians establish a "fact." Students are to sort out of a body of documents areas and points of agreement shared by writers. They also read the first of the paperback histories, a thesis-ridden history with a rather clearly stated set of biases on the part of the author. Thus the week is a review of the first two weeks and a preparation for writing their own histories.

CONCLUSION:

In brief, students analyze single documents, bodies of documents, and book-length histories for bias and perspective; they seek out and establish (within a defined work or body of information) the facts of a series of problems; and finally they write a brief history of the 1850's based solely on primary documents.

Although some students objected early in the quarter to what they felt would be a course of value only to history majors, almost all agree that it made them more critical readers and that this course had made history "come alive." The graduate assistants were equally enthusiastic. Neither had much background in pre-Civil War U. S. history and neither cared to make themselves into "mini-experts" for the sake of earning their bread and butter for a quarter. Both were equipped, however, to work in the development of intellectual skills of inquiry.

Among the activities of any university worth of the name, the transmission of knowledge will always remain one of the school's principal functions. But, if that knowledge is transmitted without preeminent attention to improving the quality of independent thought, schools can become factual mausoleums.

A FRESHMAN COURSE ENTITLED "SEX, DRUGS AND MORAL RESPONSIBILITY"

Donald Scherer, William Baxter, Marvin Kumler

Several faculty members in various departments have been convinced for some time that their disciplines have important contributions to make towards the resolution of problems of social responsibility currently facing man, and especially facing our students. Faculty members in a number of departments have made separate efforts to bring the resources of their disciplines to bear on such particular problems as those concerning human sexuality and the use of drugs. Such efforts, however, have seemed less than adequate for two reasons: (1) other curricular demands have prevented allocation of sufficient time for examination of the issues, and (2) the scope of the problems, ranging far beyond the boundaries of any one discipline, has made discussions very incomplete. The special importance of the second reason can be explicated by reference to the observation by philosophers that how one ought to reason about human sexuality or about drugs is partially a function of matters of fact known by biologists and psychologists, and by reference to the observation by non-philosophers that a knowledge of matters of fact, independent of consideration of the canons of ethical reasoning, does not suffice to decide issues of moral responsibility. Thus it seemed to us that an interdisciplinary approach to such issues would allow students a much fuller appreciation of the problems involved. Certain features of the course should be noted:

(1) The course used Eleanor Hamilton's Sex Before Marriage and Drug Awareness as texts.

(2) The course has been offered twice to large sections of students (150-225).

(3) Material has been presented by means of lectures, taped discussions, and films.

(4) The students discussed the material in groups of about 50.

(5) Evaluation of student learning was made in terms of student ability to integrate factual matter with principles of moral reasoning in short essay answers to specific questions, and through a multiple choice examination.

(6) The course was open to freshmen only.

(7) The grades for the course were S-U.

(8) The course was offered for 2 hours credit and met one evening per week for two to three hours.

(9) The professors, rather than attempting to sermonize, attempted to present bases for intelligent and rational consideration of the issues.

Topics covered during the course are listed below.

1. Ethics and Science; Positive vs. Critical Morality (Scherer)

2. Harm to self and others. PANEL on drug effects.

3. Decision making when information is lacking. PANEL on Drug Research findings.

4. Should laws govern private morality? (Scherer)

5. Film (Drugs & the Law) and Discussion

6. Sick or criminal? The role of learning. (Kumler)

7. Respect for Persons as Behavioral Guide. VD and Contraception. (Baxter)

8. Discussion of "what is 'personal'".

9. What is human life? Abortion. (Baxter)

10. Film (Abortion and Law) and discussion.

11. Comparative application of Positive & Critical Morality. Sexual Deviations. (Kumler)

12. Integration of Ethical Reasoning. Love & Pre-marital Sex.

ENCOURAGING STUDENT PARTICIPATION IN A DIALOGUE-ORIENTED CLASS

Dr. Peter H. Spader

This paper will sketch out a number of things I've tried in the last few years to encourage students to take part in a dialogue-type class. The first technique I am reasonably sure works well and would work for anyone. The rest is still just trial and error. I am, in fact, just a little leary about saying anything, because the more I teach, the more aware I am of how inter-related everything that goes on in the classroom is - and how foolish it can be to try to single things out. But here goes!

To begin I would like to make a few comments on what attracts me to the dialogue-oriented class as opposed to a straight lecture approach. The greatest drawback of the lecture is the lack of immediate feedback from the students except through exams which, because of their judgmental character are not the best way to get feedback (on exams students give you what they think you want to hear and not what they really think). As a teacher you need to know where the student is at every moment, whether he is ahead of you, behind you, or in another world entirely. Now a good lecturer can tell when things are "going well" and when they are not. But he cannot tell what is wrong when it does go sour. It is my desire to get feedback that led me to the dialogue approach. But to make it work effectively in this regard you must overcome several problems.

The first problem is that for there to be a dialogue you need active participation by the students, and not just participation, but rather open, honest, participation. If participation is all you needed, the problem could be solved very simply - merely by calling on people. But that is not the problem. The real difficulty is getting open, honest, participation. This is hard because the student exposes himself to judgment much more often and more riskily in dialogue than he does in the more conventional lecture, or lecture-recitation, class (assuming, of course, he takes part!). If you force the student to take part he will assume (and perhaps correctly so) that he is in an exam-like situation and will react accordingly - and you will lose the feedback you desire.

Although I cannot eliminate peer-group judgment, the solution I have adopted for this problem does remove the "exam" aspect from class participation. It has two parts.

1) Class participation is on a voluntary basis only.

2) Class participation is on a bonus-grade basis only.

The first rule eliminates fear of being "called on" and having nothing to say, one of the most embarrassing moments for a student. So that the students will know I really mean it when I say that participation is voluntary, I allow students who would rather not participate to turn in bonus papers, thereby "participating" more privately and avoiding peer-group judgment. The second rule removes the fear of being "judged and found wanting", for participation cannot hurt their grade (how much it helps their grade is up to the instructor, in my classes bonus work can help up to a full letter improvement in their final grade). Together these two "rules of participation" provide a powerful positive incentive for participation.

The results are most encouraging. I have used this technique for several years and have employed a student-evaluation form that includes a place for the student to write a short essay on what they liked best about the class. It is rare that the student does not comment on class participation and the openness of the atmosphere. Now the "rules of participation" I have just sketched are not the only thing that contributes to this openness, to be sure, but they do play an important part in getting the class open.

Having discovered a successful technique for getting students to actively take part in a dialogue-type class, I should now like to talk about a problem I am less sure of being able to solve. Heavy and active participation by students tends to threaten the coherence of the class, if not sometimes destroy it. In the lecture-class the structure is imposed by the lecturer, and assuming he can prepare a coherent and clearly developed lecture there is no problem in maintaining a coherent structure. In a dialogue-class this cannot be the case, at least not in the same way.

The fact that the structure cannot come just from the teacher does not mean that we can allow a non-coherent or non-structured situation. There must be a structure - and it must be one that allows learning to occur for as many students as possible. This is the problem: how to foster the growth of good learning structure without taking control in such a way as to destroy or limit creative possibilities? The one thing I have noticed is that it is impossible to forecast where a fruitful structure will come from. Sometimes it arises from the group spontaneously (often as a response to a commonly-felt "problem" that unites the group, even if tenuously), but this is rare. More often an individual student or a small group of students initiate the structuring and lead the class. Sometimes I alone do it. In a way, the direction of my experimentation is that of trying to keep options open so that wherever a fruitful structure--not merely the overall structure but even the day-to-day development and activities--comes from the class will be able to benefit by it. The following are a number of things I have been trying:

I. Getting the students involved in class planning, but only when ready and to the degree to which they are ready. In my Introduction to Philosophy class I use a problems approach, and let the class choose the last two of the three problems we do. I choose the first problem and initiate discussion on it - then turn them loose. (This doesn't preclude the possibility that some class may object and demand to choose the first problem too - if so, they are ready, and I am glad to let them. On the other hand I have learned not to just walk into a class on the first day and say, "let's do something"!).

II. Getting out from in front of the class now and then. The first way I do this is to allow one of the students to lead discussion. (Because students sometimes "bomb" badly I usually have two or three students prepare to lead class during an hour - which gives them about 15 minutes each to fill. If something catches fire we run longer and use this format the next day too.) This is less than successful at times, but it does reduce the "authority figure" problem somewhat and also exposes the class to a different approach, and sometimes to a really creative experience - some of "my" best classes weren't really mine at all.

A variant to this that I have started using last quarter is to break the classes into small groups (4-7, at the students' discretion). This has worked well in getting people involved. I allow the students to discuss anything they want in these small groups, which promotes innovation. At the same time they are told they will be expected to report back to the main group and be ready to discuss what they have come up with in the small groups. This keeps things from getting too far afield. It's hard to tell how well this will work. I have had a few "dead" groups, but it did produce very dramatic success in one Introduction section where two groups developed very interesting and novel approaches to a traditional philosophical problem and generated high interest in it. I intend to keep trying to hit the balance between too much control and too little, or as the students put it in evaluations "too much Spader" or "too little Spader".

"THE FIVE-QUESTION TECHNIQUE"*

Elmer Spreitzer

On a day when any textbook or supplementary reading assignments are due, each student is required to bring to class in written form his personal listing of five points from the assigned readings which the student believes is most worthy of class discussion or clarification. The "questions" listed by the students may be of various types:

(a) Questions about material in the assigned readings concerning material that is difficult or hard to relate to material covered earlier in the course.

(b) Challenges or disagreements with the material covered in the assigned readings.

(c) Ways in which aspects of the assigned readings have possible applications to the students' own life or campus situation.

(d) Supplementary examples or illustrations of material covered in the readings which the students think important.

(e) One or more points related to the material covered in the readings but which were NOT TREATED by the author(s).

On the day when a reading assignment is due, four students are selected at random by the instructor to write the best one of their "questions" on the blackboard. While the selected students are writing their points on the blackboard, the written list of questions is collected from the remaining students in the class. Grading of the questions submitted simply involves assigning a satisfactory or unsatisfactory grade, depending on whether five intelligible points were listed by each student present. Only a stated maximum number of cuts are permitted the students on the due dates.

After the questions have been written on the board, the instructor can follow several procedures.

(a) Ask a student who wrote a question on the blackboard to explain more clearly or in more detail just exactly what he had in mind.

(b) If a question is ambiguously stated, point out various alternative interpretations.

*The technique summarized in this paper represents a modification of a procedure originally written up by Professor Hornell Hart.

(c) If a given question entails several alternative answers, state the possible answers, and then ask for a show of hands indicating how many students support each of the alternative answers.

(d) Present this situation to the class: "Let us suppose this question was part of a final examination, and that you were required to answer in less than 100 words. Write out your answer now on a sheet of paper." After allowing a brief period for the students to write an answer, the instructor calls on several students to read their answers. The professor can then gently use their written answers as a basis for further discussion or clarification.

(e) For some types of questions, the instructor might ask the students, "What examples do any of you know of which might cast light on this question?" After several responses from the students, the instructor might elaborate on the implications.

(f) Ask the students to vote on which of the questions listed on the blackboard they would most like to discuss, and then determine why this particular question was of particular interest to the students.

Possible advantages of this technique

This technique gently encourages the students to read the material on time, a practice that discourages cramming and encourages discussion because the students then have a common frame of reference. It also enables the instructor to discern the students' areas of interest as well as to discover what topics are of particular difficulty or ambiguity. This technique can also help the instructor to get away from the brute lecture method. The procedure described above requires little record keeping on the part of the instructor and little special preparation other than a thorough familiarity with the material in the assigned readings. In short, this technique is student-oriented in that it elicits the students' personal interests and difficulties, while at the same time affording the instructor an opportunity to transmit the mainline content of his discipline.

HOME ECONOMICS (MARRIAGE & FAMILY)

Robert J. Stout

There is, obviously, nothing NEW under the sun. We do not create but rather, take the raw materials from the Creator and refine them. Just when is teaching 'innovative?' I do not know.

In my approach to Home Economics 302 I have tried a number of things, probably some of them borrowed from other profs and courses. In general, I attempt to set the stage for informality and to remove an excess amount of pressure I give the students alternatives as three types of term papers.

I try to opt for thinking and sensitivity to fellow students. This is not the most popular approach to many who want the cookbook recipe approach.

I suggest that (1) They say hello the first 25 people they meet on campus; keep track of the number and reaction of these people. (2) I suggest that they go to the Nest or wherever and chat with another person. After they split up, I ask them to write out what the other person has said. Are we really listening or listening only to ourselves and how we are coming across to others?

Two further, and broader, aspects deal with the orange and a pumpkin pie.

I request students to bring an orange to class. The two questions which they are asked to write on are (1) How may an orange and a human relationship be similar? and (2) Tell me step by step how people eat oranges.

Discussion follows.

Secondly, we discuss a recipe for a pumpkin pie.

Here each of us writes out what he (she) feels should go into a recipe for a pumpkin pie. We then discuss where each ingredient comes from. The conclusion is that we are in debt to many people for a simple thing like a pie on our table. No man is an island and all of that.

These comprise what may be interpreted as 'innovative' in my classes.

DEVELOPING TEACHING EFFECTIVENESS IN MATHEMATICS

Waldemar Carl Weber

1. The Seminar on Teaching College Mathematics

This seminar was offered for the first time last Fall to some graduate students in the Department of Mathematics, and on the basis of our experience I am planning to expand this course and offer it as a three quarter sequence next year. This seminar was organized to:

a. help the department to satisfy its commitment for training college teachers as described in the *Proposal for a Doctor of Philosophy Degree in Mathematics* (BGSU, 1971).

b. provide a method for orienting, counseling and evaluating new teaching assistants prior to a regular teaching assignment.

c. improve the quality of instruction provided by teaching assistants in the Department of Mathematics.

2. The KAPPA MU EPSILON Mathematics Honor Society Award for Excellence in Teaching Mathematics

As Faculty Sponsor of our local KME chapter, I have been much engaged in considering the various factors that contribute to teaching effectiveness. Of particular interest to faculty that share this concern might be a ranking of such factors based on data from more than 6,500 members of the faculty, student body, and alumni at four universities. I would be glad to discuss the data with anyone interested. Gary Woditsch will also have copies at the Office of Institutional Studies.

3. Machine Scored Examinations

During the past few years I have administered machine scored examinations to students in mathematics at the freshman and sophomore levels, and I would like to compare my experience in this area with others to improve the technique for constructing these examinations.

THE AMERICAN SCHOOL SYSTEM

Morris J. Weinberger

Innovation, Purpose of:

To create and maintain a classroom atmosphere that encourages discussion, original contributions, and student-teacher interaction in producing course relevance (as defined by both), especially in classes of 30-50 participants.

Problem:

In Education 409, The American School System--a senior level course usually taken just before student teaching, graduation and employment. Current students were so concerned over immediate problems facing them that they were not motivated to learn the classic course content. Employment and discipline problems were their major concerns. Test and class discussions showed evidence of cramming for required assignments but little carryover. A year-later survey showed little recollection of course content and less evidence of value on the job.

What Was Done:

Not all of the following things were introduced in the same class during the same quarter. Rather, each was tried in response to a specific need and kept after being found useful. Most separate experiences were "borrowed" from professional friends who described them during discussions of problems with students.

1. Classes are begun with an ice-breaking technique--a trading game that simulates the development of a three-class society but involves lots of boisterous movement, speech, and competition. It also helps people feel how lower class people feel when society seems stacked against them, when nothing they do seems to result in progress. Discussions of results, before they know who the teacher is or course purpose, sets a tone of expectation that usually persists.

2. Following the advice of a former college teacher of mine, no syllabus is distributed the first week to violate student expectations of a trite routine lecture-textbook-test course. Instead, we begin by getting into what we will do.

3. The next class activity is the distribution of 3 x 5 blank cards on which they are asked to write on one side the one or two most serious problems confronting American education and, on the other, one or two personal purposes (or hoped-for learnings) for the course. They are told that these will be tabulated and used in planning course priorities and time sequences. They are turned in without students' names.

4. A fact and concept inventory is given the first week with all the areas the instructor feels are relevant outlined briefly. Students are asked to check in one column the items they most wish to learn about and in another column those items they feel they already know and the source of their information. These are returned to students as a guide to things felt important by the instructor after tabulation to see what students feel important.

5. The first assignment given is that each student must hand in a weekly communication of some sort, if only a blank sheet of paper on which they write "weekly communication" and their name and date. (This is kept private by the instructor) After trying bizarre communications (smile buttons, art work, poetry, newspaper clippings, etc.) to test instructor sincerity, these become a real source of information about where the students are in terms of attitude, motivation, and response to the teaching. It also gives feedback on problems they are having and questions for class discussion.

6. Students are told that, as Seniors, they have responsibility for both their own learning and to help others in the class (including instructor) benefit from their special interests and experiences. They do this in specifically set-aside "student days" where they, collectively, are responsible for the discussion, bringing in topics or questions, items from their reading or experience, and by project done in groups or as individuals, on topics derived from the initial problem survey.

Results:

1. Much higher rates of student participation, especially in per cent of class involved, and in the fact that they talk to each other as much as to the teacher.

2. The instructor gets to know far more students on a personal basis, which both helps the education of the student (in his ability to ask questions and give accurate feedback about how the course is going) and also aids in filling out placement forms for student files.

3. Increased numbers of visits to the office by students with specific problems with class material, seeking help or resources on projects, or with personal problems (often the beginning of a referral to the counseling center.)

4. Arguments about class discussion that continues over coffee or lunch, with students inviting the instructor to come along.

5. Higher end-of-class evaluations of the course and instructor on a standard form used by several departments, and by me for several years, especially on the items that indicate greater introspection by the student and application to his future career.

6. Long after the class is over, sometimes more than a quarter, I get personal letters, relevant clippings, and personal visits from former students regarding something that had come up in class that was recently present in their lives.

Problems:

1. Need for the professor to develop a high degree of tolerance for confusion, ambiguity, and requests for more structure at the beginning of the course, and especially the ability to remain silent, or give brief answers on "student days".

2. A need to be more quickly responsive to student feedback and requests for help or they lose faith with this new "system"--especially to questions they write on the private communications.

3. Broader and more up-to-date knowledge of the field and resources available to refer students to--you never know where problems are going to come from.

4. Self-doubts by the instructor--he needs structure too--"Are they really learning anything?"

5. It requires more work and time than giving a lecture, and it is tempting to revert back to easier ways, and I do so when rushed or tired.

Future:

I need to do a longer range post-class study at least a year after the class to see how effective students feel the new ways are after being employed, and what specifics helped on the job and what they wish they had learned more about--I can share this feedback with current students.

PARADIGM POTPOURRI

Gary A. Woditsch

Through their cognitive and intellectual processes and through the exchange of linguistic signs and their meanings, the members of a society produce, maintain, and occasionally modify, elaborate conceptual schemes, plans or models (compare Durkheim's "collective representations") which are logically ordered and which mediate and constrain social transactions in complex ways.

Harold W. Scheffler

Try a little analogy. Equate numbers with factual content. The argument can then be made that higher education should leave off exercising students in the addition, subtraction, multiplication and division of data. As arithmeticians grew weary of manipulating numbers and developed a meta-focus capable of considering arithmetic dynamics and relationships (algebra), so academicians should develop in their students a meta-focus that enables them to grasp the dynamics and relationships which orchestrate data within and across disciplines.

In the spirit of Jerome Bruner's quest for the underlying systems and structures which give knowledge its cohesiveness, and on the hunch that here lie the most valuable and transferable insights for those who leave schooling for roles in a radically changing world, I have over the last six years launched several efforts to bring students in touch with the paradigms, models, conceptual schemes and collective representations both they and academe employ to configure our world. Here, very briefly, are some.

1. Make a Matrix -- How to look at anything that can be described along two parameters, and the surprising new things the relational coefficients tell us. Try, for instance, language, the social dynamics of the states of India, the field of English Literature, or grading essay exams.

2. Universe Building, 101 -- Students become demigods, generate a universe all their own, and as they make it do things, acquaint themselves with their own vast creative powers.

3. Herr Doktor of Critterology -- Pose a situation which demands that your class behave as would a scientific-technological community. Then carefully analyze the success and failures of your 'critterologists'. Generates valuable insights about the sociology as well as methodology of science, also indicates why some of our social problems are chronic.

4. The Social Influence Game -- Developed by Dr. Frederick Goodman

> at U. of Michigan, this one forces people to engage each other as representatives of constituencies. Interestingly enough, they don't always behave the way they preach others should, and the game goes a long way toward showing them why. We used this one last quarter in our Authoritarianism class.

Each of these functions to some degree as a set piece, around which the instructor then arrays and relates input from the traditional disciplines. Result? Students claim a better grasp of what it is about the discipline that's valuable.

EXPERIMENT AND INNOVATION FOR ART 101

Marjorie Wright

I. Ideas

In an attempt to re-orient the traditional goal of Art 101 (ultimately art appreciation), so that the student's developing visual perception might not be confined by rigid conditioning to textbook and telelecture, experimentation, where possible, was begun; for example, the objectives of testing procedures and examination content were given a new hierarchy so that, hopefully, the student of Art 101 would be able to better relate concepts and theory to any work of art by immediate involvement in picture interpretation. It was also planned to revise or edit the telelectures in order to "up-date" them, and also to allow time for "feedback".

Students' petitions, graduate teaching assistants' suggestions (and disagreement with course content), and an actual test GTAs had constructed collectively two years ago, plus the growing concern of many of my colleagues and myself that new directions for Art 101 were not only desirable, but imperative, prompted plans for change. It became evident at college art conferences that there was general professional agreement that "foundations" programs in art needed more relevance to the contemporary scene. Publishers were and are eager for new textbooks in this area.

II. Action and Reaction

Increasing the emphasis on picture analysis prompted the development of study guides, a de-emphasis on rote memorization of titles of paintings and their artist's names, and a re-apportionment and rewriting of test questions. At the end of the fall quarter, the Art 101 GTA instructors agreed on an evaluation form, and encouraged and counselled by the results, aided in enlarging the experimentation.

The Art 101 Advisory Committee approved a proposal to give three equal tests for a term instead of the traditional terminology test and mid-term exam, which together have counted as half the theory grade; the final exam constituted the other half of the theory grade. Study guides were revised to correspond to the scope of the three tests. Test content emphasis was further reapportioned so that half of the exam was devoted to relating concepts to slides of work not only from the textbook, but also to slides and reproductions of work not seen before. There was no memorization of paintings or artists required. Again, a student evaluation was taken at the end of the winter quarter.

The students were extremely cooperative, and verbal. The consensus of the first evaluation regarding the course was that lectures via TV were very unpopular, and so was the experimentally reduced test-required memorization of paintings and artists. The consensus of the winter quarter tabulations is that the lectures are even more unpopular (perhaps since there are now fewer other issues) and that studio instructors are preferred.

Using Eben's Ability Level Curve when it is necessary to curve tests, and individual experimentation by a few studio instructors with variations of S-U grading of studio projects provided opportunity to vary the traditional grading structure. The enthusiastic student endorsement of the three graduate teaching assistants who chose an S-U studio grade variant resulting in a letter grade was evident in the student evaluation. Apparently the easing of strong, continual "grade" pressure in studio work of non-art majors did not seem to lower the quality of student effort. The extent of experiment was limited, but none the less indicative that the studio portion of the course will be more meaningful if the "but I'm not an artist" block can be removed, and the goal be that of intrinsic, albeit "creative" individual visual expression. This experiment is essentially empirical, and in no way implies a blanket endorsement of the S-U concept, but tends to reveal its particular and/or partial adaptability to the "laboratory" situation unique in the evolvement of a work of art.

It seemed prudent to first try editing the TV tapes. This was possible only with the first tape because of production technicalities; further generations of tapes decrease the quality of the image, and there seemed to be reluctance to undertake extensive revision, especially with the imminent possibility of color, or some such. Work on the tapes has been halted pending the appointment of a replacement for the technical director. Because of the university calendar, some tapes were not shown each quarter, but fortunately there was no discernible drop in comprehension, according to test results.

Rather than appropriate student work for department use as examples of 101 projects, slides were taken of selected student work, and will be coupled with instructor's directions for the free exchange of ideas among 101 teaching colleagues. In the past, students have resented involuntary retention of their work for this purpose. There often seems to be a somewhat natural, observable traditional tendency to guard teaching ideas. This, however, was no problem, for the GTAs cooperated beautifully in this project which was given to them as a directive (shame) rather than an option.

The greatest challenge was to integrate new ideas while retaining the same text and telelectures series, especially since one of the TV lectures had won a national prize in ETV competition two years ago, and both telelectures and textbook are products of art department faculty. It was also arduous to settle on specific procedure--artists are notoriously independent. The majority opinion of faculty and staff currently teaching Art 101 was used as a criterion for most avenues of experimentation. The Art 101 Advisory Committee generally approved of changes within the context of the present course structure.

III. Next

Student evaluations have helped most of the studio instructors to upgrade their teaching. This device should obviously be continued.

With permission, it would seem desirable to experiment more extensively. For example, with better than 2,000 students taking Art 101 in any year, a few sections might be released from the present course structure and be taught wholly by graduate students with a year of successful 101 teaching experience; another group of sections might be given one-half the present number of telelectures with a discussion period substituted for the other half plus the usual two hour studio period; a few sections might use either the textbook or the telelectures, with one lecture period a week and four studio hours rather than the present two. Still another unit of sections could have live lectures given in turn by the instructors of those sections, retaining the present credit hour structure of two hours for lecture and one hour credit for the two hour studio period (smaller groups). All sections would take the "newer look" standardized-type tests; comparisons of test results together with student and satff evaluations might well provide valuable insight into the efficacy of these varied approaches, and be greatly helpful in determining course format when new and/or color lectures are considered. These variants would also provide a "proving ground" for the text in use.

An increase in credit hours from three to four seems desirable for the scope of this capsule compendium of art history, art theory, and studio work called Art 101.

A hard look at ETV lectures is in order. Good audio-visual techniques universally recognize one disadvantage of TV as that of not affording "feedback". Forty-eight minute TV lectures leave little if any time for personal communication and interchange on art theory which accounts for two-thirds of a course grade: To paraphrase Ben Franklin, "Short visits make long friends".

Studio instructors report a growing demand for courses in further studio work for non-art majors. Since the greatest number of Art 101 sections occur in the fall quarter, it would be possible to give all graduate teaching assistants teaching assignments in lighter enrollment quarters by offering a second quarter of Art 101 in studio work only during those quarters. Evaluations of a trial group could indicate the desirability of adopting such a course offering on a permanent basis.

It would also seem advantageous to try Art 301 at the upper level to study and explore new, truly contemporary work, theories, and techniques. An experimental section could conceivably consist of art majors as well as of interested, art-involved students from other fields.

Since class instruction of Art 101 by graduate students constitutes a kind of "practice college teaching", a seminar course with credit would seem highly beneficial as well as desirable for further study and evaluation of both present and "NEXT" directions in college art teaching.

The research and extra preparation required of graduate teaching assistants in this project goes beyond a condition of employment; therefore, course credit seems equitable. This might well be an S-U course, and would not only permit, but encourage the graduate teaching assistants to devote sufficient time to contribute to and assist in teaching innovation for the professional enrichment of both instructor and Art 101 instruction, to say nothing of the most important result--an increasingly ardent awareness of art for the 101 student, true "appreciation"!

EDUCATION 424 - INVESTIGATIONS IN THE TEACHING OF SOCIAL STUDIES IN THE ELEMENTARY SCHOOL

First Term, Summer 1970 15 students

Charles W. Young

I. Innovation

A text new to me and class was considered a springboard, a common base of study. It had copious documentation and references to the classic research of the field. Estvan-Social Studies in a Changing World, Curriculum and Instruction, 1968.

Each student, in conference(s) with me, selected and researched a problem of interest and concern to him, within the broad limits of the social studies area of the curriculum. Each study was shared and discussed in class, and summarized in writing.

There was no formal written testing. Each student wrote an evaluation of himself and of the course.

II. Motivation, purpose

1. Students ranged in teaching experience from one quarter of student teaching to seven years. Their schools ranged from a parochial school in Michigan, to Florida, to an army dependents' school in Italy. So, as I "learned" my students and their concerns, I planned common emphases in lecture and text, diversified focus in individual research.

2. A second factor that prompted this evolving, unstructured procedure was my reading of Carl Rogers' Freedom to Learn during the early days of the term. It was my privilege to audit one of his courses at Ohio State University in 1940, and I have followed his leadership in non-directive therapy with considerable interest.

Currently I am moving in the direction of much individual choice of projects with my three sections (of 25 students each) in junior social studies "methods," Education 351.

My main problems were my own experential background. I felt uneasy that increasingly less time and discussion related directly to the text. I never before had so little formal testing to provide partial evidence of student effort.

If my current similar approaches with my juniors eventuate in similar favorable results, my conviction that self-motivation is superior to extrinsic pressures will influence me to continue all my teaching as sketched above.

Cluster
Colleges

Bowling
Green
State
University

AN INVITATION TO B.G.S.U.'S CLUSTER EXPERIENCE

The Cluster College experience is designed to serve students who wish to satisfy Humanities or Science group requirements by committing their full energies for one quarter to an integrated, interdisciplinary academic program. Each Cluster College will have its own residence facilities, so that participants may share the benefits of a community effort to correlate living and learning. Both Cluster Colleges will provide fifteen quarter hours of credit applicable to the student's group requirements, and both plan to conduct their programs during the 1972-73 Winter Quarter.

The actual conduct of both Cluster Colleges in Winter Quarter 1972-73 is at this point contingent on budgetary authorization and sufficient student interest. Final decision on offering the Clusters will be made prior to Fall Quarter, 1972. Since enrollment will be limited to approximately one hundred and twenty-five students for each Cluster, students interested in either program are encouraged to complete and return the attached application form by June 1, 1972. Representatives of the appropriate Cluster College will contact applicants to review the program and discuss its compatibility with each applicant's objectives, if any question arises.

THE HUMANITIES CLUSTER COLLEGE

The Humanities Cluster College has been designed to counter the charges most often directed against the traditional methods of teaching the Humanities at the beginning level. It is contended that they are fragmented when they should be coherent, that they are impersonal when they should be intensely personal, and that they are apparently irrelevant to the concerns of young people when they should be as applicable to those concerns as possible. The integrated program of the Humanities Cluster College, on the other hand, is specifically oriented toward being coherent, personal, and relevant.

Humanities Cluster students will study with a faculty of six instructors from such departments as Art, English, History, Music, Philosophy, and Speech. In place of the usual course offerings in these disciplines, the integrated program is built on a system of themes and topics. The overarching theme for the whole program is Values; under that general heading are ranged five themes that take up various aspects of Values as they are embodied in the Humanities: for example, the Humanities Cluster College of '72 considered such themes as "Feeling, Perceiving, Reflecting: The Dimensions of Awareness"; "Law and Love"; and "Liberation and Regeneration". Within those themes specific topics focused on such matters as "Joan Baez: Words and Music", "2001 A.D. and Teilhard de Chardin", or "Hamlet and Picasso: A Matter of Seeing".

Both themes and topics will be planned to work together in a connected sequence moving from "awareness" to the concept of "the new consciousness". The emphasis throughout will be on developing sensitivity and perception, and the ability to reflect on humanistic experiences and values. The motto of the program is "The Dignity of Being Human".

Classes will be small, averaging from nineteen to twenty students, and will be arranged on a rotating plan, whereby each student will discuss each theme with each instructor. In addition to classes, which will be themselves conducted on a discussion format, there will be small-group discussions and independent or small-group projects, in which students will be expected to do such things as write, paint, develop mini-plays, or participate in musical activity. Students and faculty will also attend plays, films, lectures and concerts together and take trips to neighboring museums. The faculty will be available for help, advice, and tutoring the major part of each day; and each faculty member will have a group of advisees who can turn to him for individual counseling.

Living arrangements within the Humanities Cluster residence will be co-ed with alternate floors. Student participants normally will have no other academic responsibilities during this quarter. Successful completion of the program carries fifteen hours of Humanities credit. Each of Bowling Green's undergraduate units (Arts and Sciences, Business, Education and Music) has approved the use of this credit towards satisfying their respective group requirements.

The customary grade will be S/U, although the option of letter grades will be available on a contract basis.

For further information, contact either:

Richard Carpenter
218-A University Hall Phone: 372-2210

or

Robert Goodwin
210 Shatzel Hall Phone: 372-2117

THE SCIENCE CLUSTER COLLEGE

The Science Cluster College will provide a stimulating experience of lasting impact for those students who have expressed an interest in science but have not identified career choices in this area. Group requirements in mathematics and science can be satisfied by a grade of C or better; however, there are no passing grades that can be used to satisfy the prerequisites of any traditional courses that are offered in these areas.

The Cluster College dormitory will offer a choice of either segregated or co-educational living accomodations for men and women with common eating and recreational facilities.

A team approach will be used by faculty members during the Winter Quarter in order to help the students in the Cluster College dormitory to become academically acquainted with one another and to develop a sense of scientific community among themselves in the short period of time that is available. Special residence hall advisors with backgrounds in the sciences will be selected to aid students in maintaining a relevant living-learning focus.

A variety of interdisciplinary problems, to be presented and explained by the faculty near the beginning of the Winter Quarter will be used for separating students into administrative sections of approximately twenty each and for providing the subject matter with some measure of flexibility. Some of these problems are expected to present science as a discipline, while others are expected to present science as a culture. Coherence will be supplied by group conferences, survey courses, and occasional theater demonstrations. Specific topics will be determined by a joint committee of selected faculty members, residence hall advisors, and student program participants during the fall planning quarter.

Thus, the Science Cluster College provides an alternative learning environment for the non-scientist, who wants to gain some insight of the scientific community and its methodology, by encouraging him to become immersed in a problem with considerations in more than one discipline and consequently by teaching him to work cooperatively with students and faculty members in search of a solution. This new educational concept promises an unusual opportunity for a meaningful encounter with the Sciences.

For additional information, contact:

Waldemar Weber
409 Math-Sciences Bldg.   Phone: 372-2170

or

William Easterly
331 Life Sciences Bldg.   Phone:372-2434

Students interested in either Cluster College should drop the attached application form in Campus Mail by June 1, 1972.

PLEASE PRINT

Please accept this as an application for my admission in the (check one):

☐ Humanities Cluster College

☐ Science Cluster College

Last Name First Name Initial

Social Security Number Campus Phone

Campus Mailing Address

Complete Summer Mailing Address

Status as of Fall, 1972: ☐ Freshman ☐ Junior
☐ Sophomore ☐ Senior

College

Major or Undecided Minor or Undecided

I hereby authorize the faculty of the indicated Cluster College to examine my academic record. The following remarks briefly describe my interest in the Cluster Program.

Signature of Applicant